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Water, Land and Air Protection

2002/03
Annual Service Plan Report

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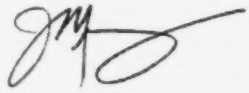
Accountability Statement

The 2002/03 Ministry of Water, Land and Air Protection Annual Service Plan Report was prepared under my direction and in accordance with the *Budget Transparency and Accountability Act*. This report compares the actual results to the expected results identified in the ministry's 2002/03 Service Plan. I am accountable for the ministry's results and the basis on which they have been reported.



Honourable Joyce Murray
Minister of Water, Land and Air Protection

May 29, 2003

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BRITISH COLUMBIA

Ministry of Water, Land and Air Protection

The Ministry of Water, Land and Air Protection is committed to protecting the quality of British Columbia's environment. We have a mandate to reduce pollution and the accompanying risks to human health; maintain and restore our province's natural biological diversity; and manage our parks, protected areas, wildlife and fish for the benefit of present and future British Columbians and our many visitors.

This Annual Service Plan Report outlines our achievements in relation to our 2002/03 - 2004/05 Service Plan. Over the past year, we have made notable progress in achieving our annual performance targets and carrying out our strategic shifts. We have made decisions based on sound science; created opportunities for innovation and economic development; reduced regulatory requirements; and continued to protect our natural environment. We moved ahead with our efforts to tackle a number of major environmental issues, such as climate change, and are working to ensure that British Columbia's interests are addressed. Contributions from the Recreation Stewardship Panel, Contaminated Sites Panel, and Wildlife-Human Conflict Prevention Team provided a solid foundation for the ministry's 2003 legislative agenda. This will form the basis of a framework that is cost-effective, focused on environmental results, and encourages innovation.

The ministry continues to support our government's broad vision of a strong and vibrant provincial economy; a supportive social infrastructure; safe, healthy communities and a sustainable environment. We recognize the need for responsible management of ministry resources and ongoing performance management. To continue improving in the years ahead, we remain committed to investing in our human resources and information systems.

Promoting stewardship and shared responsibility remains key to achieving our environmental goals. We will continue to increase partnership opportunities with governments, First Nations, communities, academic institutions, industries, volunteer organizations and the public. I would like to thank ministry staff, our colleagues in other ministries, our numerous partners outside of government and the people of British Columbia for their dedication to protecting and improving the quality of our spectacular natural environment now and in the future.

Honourable Joyce Murray
Minister

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Year-at-a-Glance Highlights

In 2002/03, the Ministry of Water, Land and Air Protection produced its first Service Plan in accordance with the amended *Budget Transparency and Accountability Act*. The Act provides the legislative framework for a regular cycle of planning, reporting and accountability on which all ministries base their annual service plans and reports.

This annual report covers the fiscal year April 1, 2002 to March 31, 2003 and reports on the ministry's 2002/03 – 2004/05 Service Plan. This gives the ministry the opportunity to analyze and evaluate how well it has succeeded in aligning its business practices, service delivery, resource capacity and performance with the following strategic cornerstones:

- implementing the government's *New Era* commitments;
- making the strategic shifts required to move the government toward its long-term objectives;
- achieving the goals and objectives outlined in the ministry's 2002/03 – 2004/05 Service Plan; and
- meeting performance targets.

The intent of the 2002/03 Annual Service Plan Report is to provide the public, stakeholders, legislators and other agencies with meaningful, credible information on the ministry's progress in achieving its vision and mission. It also enables the ministry to explain why certain actions were taken and what the impact of those actions has been.

Some of the ministry's significant actions and achievements over the past year are highlighted below. (See Appendix A for a glossary of terms.)

April 2002

- Conservation projects received funds totalling $5.3 million from the Habitat Conservation Trust Fund to support fish and wildlife conservation projects across British Columbia.
- Funding of $1.5 million was committed for air quality and water quality monitoring equipment to improve monitoring, reporting and enforcement capacity.
- Funding of $300,000 was announced for Bear Aware projects administered by the British Columbia Conservation Foundation and the Northern Bear Awareness Program to reduce conflicts between humans and bears.
- *Waste Management Act* amendments were introduced to streamline, clarify and reduce the duplication of regulations related to mine site reclamations. The previously existing regulations added to the cost of doing business without providing environmental benefits.
- Staff participated in *New Era* leadership workshops in support of Public Service Renewal.
- The Deputy Minister attended the 18th meeting of the British Columbia/Washington Environmental Cooperation Council, at which environmental matters of mutual concern between the province and the state of Washington were addressed.

May 2002

- An advisory panel was appointed to carry out a review of the contaminated sites provisions in Part 4 of the *Waste Management Act* and the Contaminated Sites Regulation. This review was part of the government's commitment to create an efficient, effective performance-based regime that focuses public resources on sites that pose the highest risk to human health and the environment. The panel sought input from citizens and stakeholders as it developed its recommendations.
- An expert panel was appointed to make recommendations on a new management and funding model to ensure the sustainability of fish, wildlife and park recreation opportunities.
- A partnership between the Ministry of Water, Land and Air Protection, the Ministry of Forests and the Ministry of Sustainable Resource Management resulted in the enactment of the *Forest and Range Practices Act*. The new Act supports the government's *New Era* commitment to deliver a results-based Forest Practices Code to accelerate the protection of wildlife habitat.
- A $100,000 grant was announced to establish a chair of conservation biology at Okanagan University College, named in honour of noted environmentalist Dr. Vernon C. "Bert" Brink, to improve scientific knowledge. The grant is an example of the government's commitment to increase research funding for colleges.
- The *Georgia Basin-Puget Sound Ecosystem Indicators Report* was released, the result of a partnership between this ministry and Environment Canada, Parks Canada, the Department of Fisheries and Oceans, the Ministry of Community, Aboriginal, and Women's Services, and the Ministry of Sustainable Resource Management.

June 2002

- A community-based Bear Smart program was developed in partnership with the British Columbia Conservation Foundation and the Union of B.C. Municipalities to help reduce conflicts between people and bears.
- The creation of a new provincial park at Wakes Cove on Valdes Island was approved at an open cabinet meeting. The decision supports the government's *New Era* commitment to ensure that decisions on new parks are made in public.
- The Marmot Recovery Centre on Mount Washington was opened, fulfilling a *New Era* commitment in support of initiatives to protect species at risk. This was accomplished in partnership with business groups and agencies.
- The ministry partnered with the Ministry of Health Planning and the Ministry of Health Services in developing the Drinking Water Action Plan that establishes accountability for safe drinking water.

July 2002

- A new AOX Regulation was enacted to appropriately limit discharges of adsorbable halides from pulp mills.

- The Habitat Conservation Trust Fund won a North American Waterfowl Management Plan award in recognition of its long-term commitment to wetland conservation. Previous recipients include the United States Nature Conservancy, Ducks Unlimited and the Delta Waterfowl Foundation.
- A new centralized call centre was established to improve public safety. The call centre facilitates responses to conflicts between wildlife and people and to violations of environmental legislation. Public access has been improved, enabling citizens to call with their concerns 24 hours a day, 7 days a week. The number of calls received from July 16, 2002, to March 31, 2003, totalled 24,121, which is twice that originally projected. All calls are categorized and tracked to provide information for future decision-making and to improve client service. The call centre is operated in partnership between the ministry and the Provincial Emergency Program, which is part of the Ministry of Public Safety and Solicitor General.
- The 2001/02 Annual Report was released, meeting requirements under the *Budget Transparency and Accountability Act*.

August 2002

- The ministry issued a Request for Information for the provision of campground and day-use park services. This resulted in the negotiation of park management agreements with private-sector operators that will improve service efficiency and recreation offerings.
- Ministry staff across the province were asked for input on a Renewal Strategy in support of the government's Public Service Renewal initiative.

September 2002

- A comprehensive review of the *Waste Management Act* was launched to support the government's *New Era* commitment to adopt a science-based, principled approach to environmental management.
- An expert advisory board was appointed to meet the government's *New Era* commitment to ensure clean, safe drinking water. The board is providing technical advice on groundwater regulations and standards developed as part of the government's Drinking Water Action Plan.
- A $2-million Living Rivers trust fund was announced as an important first step in fulfilling the government's *New Era* commitment to develop a Living Rivers Strategy to protect and improve waterways. The fund will provide a secure base of funding for rivers-related projects in the long term.
- The Advisory Panel on Contaminated Sites delivered its interim report to the Minister.
- The implementation of a strong, scientific, waste management regulation resulted in the lifting of the aquaculture moratorium. This allowed the creation of new jobs in coastal communities.
- The annual Environmental Award Recipients were named by the Minister. Eight individuals, organizations and businesses were recognized for their contribution to the protection and stewardship of the environment.

- The ministry participated in the annual convention of the Union of British Columbia Municipalities, at which local governments met with the Minister and ministry staff to discuss a wide range of issues.

October 2002

- Public Conservation Assistance Fund grants were awarded to 28 habitat-related projects in the Thompson, Kootenay and Cariboo regions to enhance local biodiversity and encourage community-based stewardship.
- Amendments to the *Drinking Water Protection Act* were passed to strengthen accountability for the management and delivery of drinking water.
- In support of the government's *New Era* commitment to oppose the Sumas II energy project and protect the sensitive Fraser Valley airshed, the government filed an appeal with the U.S. Environmental Protection Agency to rescind the permit that allows the project to proceed.
- The ministry piloted and delivered one-day training courses for ministry staff on integrating risk more systematically into operational and policy decision-making. This resulted in the delivery of five one-day sessions in various locations across the province.

November 2002

- The Recreation Stewardship Panel delivered its final report, recommending a new model for recreational services in the provincial park system. The new model will protect and expand the province's outdoor opportunities while maintaining conservation values.
- A draft of the Coal Bed Methane Code of Practice was developed to encourage the sustainable development of this natural resource.
- A partnership agreement was signed between the ministry's Conservation Officer Service and the federal Department of Fisheries and Oceans, the Royal Canadian Mounted Police (RCMP), and the Esketemc First Nation for a Community Constable Program in the Alkali Lake area. The program will facilitate the provision of fish and wildlife regulation enforcement.
- *Toward a Wildlife-Human Conflict Prevention Strategy: A Working Paper* was developed and formed the basis for consultations with key communities and stakeholders. The paper sought input for the development of a strategy focused on effectively managing wildlife-human contact in communities and regions. Such a strategy would include a role for the provincial government, while providing opportunities for local governments, First Nations, non-governmental organizations and private individuals to prevent wildlife-human conflicts in their own communities.

December 2002

- The Motor Vehicle Emission Reduction Regulation was repealed. This action was part of a larger effort to eliminate regulatory duplication by harmonizing vehicle and diesel regulations with regulations under the *Canadian Environmental Protection Act* that meet U.S. Environmental Protection Agency standards.
- The *Environmental Trends in British Columbia 2002* report was released, providing the public with credible information on key environmental issues and trends.

January 2003

- The first phase of the new recreation stewardship funding model was implemented, resulting in all revenue collected from park, fish and wildlife fees being dedicated to the delivery of services for hunting, fishing and camping.
- Through the efforts of government and industry, the oil product stewardship program was expanded to recycle oil filters and empty oil containers. The program is part of the government's *New Era* commitment to protect the province's land and water resources.
- The French Creek Watershed Study was released showing the consequences of land-use decisions and promoting the ability of residents to shape the future of the watershed. The study and Web site were produced through a partnership between the ministry and the Ministry of Sustainable Resource Management, with input from the Regional District of Nanaimo and community members.
- New guidelines were introduced for coal-fired power boiler emissions, setting target limits that are comparable to neighbouring jurisdictions, such as Alberta and Washington state, and which are consistent with the province's energy policy announced in November 2002. The regulations will continue to protect the environment while providing greater certainty to parties interested in using coal-fired power.

February 2003

- The ministry completed consultations with First Nations, key stakeholders and communities throughout British Columbia on a Wildlife-Human Conflict Prevention Strategy. Consultations on the strategy began in November 2002.
- The ministry partnered with the Provincial Emergency Program (PEP) to provide impact assessment analysis during flood incidents. (PEP administers the British Columbia Flood Plan.)
- The Advisory Panel on Contaminated Sites, which reviewed contaminated sites legislation and made recommendations for regulatory change, delivered its final report. This report will be used to develop a new policy framework for the regulation of contaminated sites in British Columbia and will inform subsequent changes to legislation.
- The ministry celebrated the inauguration of the Discover Camping online campground reservation service (operated by the ministry). The service was the result of a partnership with Tourism BC and Parks Canada and is an example of the government's commitment to provide Web-based access to services.

- The 2003/04 – 2005/06 Service Plan was released, summarizing the ministry's current business and priorities as part of the 2003/04 budget documents.

March 2003

- An independent panel of grizzly bear experts confirmed that the ministry's management of grizzly bears is effective and that sound population estimates are being used.
- A new funding and management approach for fish hatchery operations was developed in preparation for the establishment of the Freshwater Fisheries Society of B.C.

Ministry Role and Services

Mandate

In early 2002, the government completed its Core Review of all ministries. This review confirmed that the mandate of the Ministry of Water, Land and Air Protection is to protect and enhance the quality of British Columbia's water, land and air in a way that contributes to healthy communities, recreational opportunities, a sustainable environment, and a strong and vibrant provincial economy.

The Core Review provided direction on three major areas of action for the ministry:

- Environmental Protection — shift to results-based regulation, industry responsibility and market incentives.
- Environmental Stewardship and Conservation — shift to results-based regulation and focus on priority ecosystems for protection.
- Outdoor Recreation — increase partnerships and private sector involvement and move to market-rate fees for service.

The ministry's goals, strategic shifts, operational structure, activities and performance targets have been guided by its mandate, the direction provided by the Core Review and by the British Columbia government's *Strategic Plan 2002/03 – 2004/05: Restoring Hope & Prosperity*. That plan is published annually and outlines the key goals, objectives and performance measures for the provincial government as a whole.

The three goals that set the government's strategic direction are: (1) a strong and vibrant provincial economy; (2) a supportive infrastructure; and (3) safe, healthy communities and a sustainable environment. Of primary importance to the Ministry of Water, Land and Air Protection is the third goal, although all three inform the ministry's vision, mission and organizational values and principles.

Vision

The ministry's vision is a clean, healthy and naturally diverse environment that enriches people's lives, now and in the future.

Mission

The ministry provides leadership and support to British Columbians to help them limit the adverse effects of their individual and collective activities on the environment, while fostering economic development and providing recreational opportunities.

Organizational Values and Principles

The ministry plays a leadership role in managing British Columbia's natural resources in an environmentally sustainable manner and in promoting safe, healthy communities. Fulfillment of this role depends on a skilled workforce operating in an innovative and accountable culture, an integrated approach to service delivery and an emphasis on shared stewardship.

Organizational Values

- We respect our staff and create a healthy workplace that sets and communicates clear expectations, and supports a culture of staff development, recognition, reward and opportunity.
- We ensure that professional accountability and discipline characterize our behaviour.
- We focus on achieving high environmental standards through a culture of continuous adaptation to change.
- We strive to consistently meet agreed-upon client requirements and deliver our services in a transparent, fair and timely manner.
- We are committed to continuous improvement in the environmental management of the province.

Principles

- We believe a sustainable environment is central to providing economic and social opportunities for all British Columbians.
- We believe a sustainable environment is a naturally diverse environment.
- We believe that all sectors of society are responsible for ensuring a sustainable environment — government, business, industry and citizenry.
- We believe that citizens have the right to safe, healthy communities.

Ministry Operating Context

The ministry operates within the context of:

- legislation that defines its role in the provincial government (see Appendix B);
- government priorities that influence the amount of financial and human resources it is allocated; and
- broad environmental, social and economic considerations.

As part of its planning process, the ministry assesses the impact of external and internal factors that may affect its ability to operate successfully within this context. The ministry evaluates these factors in terms of the risks they may present to the delivery of ministry programs, client services and Service Plan goals. Some of these risks are broad in scope,

such as those related to external environmental, social and economic factors. Others are related to internal factors that could affect the efficiency and effectiveness of ministry operations, such as those that may have an impact on regulatory reform, technology infrastructure improvement, employee development or revenue recovery.

The ministry is actively working to refine its risk management practices to improve its effectiveness in addressing risks and maintaining consistency with a government-wide risk management initiative. In 2002/03, the ministry identified and began to address risks associated with the following external and internal factors.

External Risk Factors

- The complexity of many of the issues the ministry must address can pose significant risks. Frequently, there is considerable uncertainty about the nature and magnitude of the associated environmental, health, social and economic implications of these issues. There is also potential for further risk because of uncertainty about the interrelationships or linkages between different issues and the actions that may be taken to address them. To respond to such risks, the ministry fosters a knowledge-based organization and uses science to inform its decision-making. The ministry is currently reviewing its approach to policy-making by:
  - looking for ways to integrate policy with the results of environmental outcomes measures; and
  - using scientific indicators, such as those in the *Environmental Trends in British Columbia 2002* report.
- The ministry's actions alone may not be sufficient to protect the environment. To address this risk, the ministry is focusing considerable effort on developing partnerships and fostering stewardship as a social responsibility that all citizens must share.

Internal Risk Factors

- The ministry's regulatory regime is intended to serve the public interest. When it does not reflect an appropriate balance of alternative views about responsible environmental protection, components of the regulatory regime may be revised. Such revision can avoid higher than necessary costs for businesses and prevent higher environmental impacts than is considered acceptable. To address potential risks, the ministry is taking action to broaden the scope of the policy advice it receives. It is doing this by using advisory panels (e.g., the Advisory Panel on Contaminated Sites and the Recreation Stewardship Panel) and by conducting regulatory reviews (e.g., the *Waste Management Act* review).
- During the past decade, the ministry's technological infrastructure was not kept up-to-date. This has presented risks to the ministry's capacity to serve its clients. The ministry is working to identify and implement a cost-effective technology infrastructure that will enable the collection, management and communication of data and provide public access to information and services.

- A key challenge for the ministry is to manage staff development and capacity issues while undergoing major organizational and staffing changes. The ministry's ability to handle the risks associated with this challenge will have an impact on how well it can fulfill its mandate. To assist in addressing these issues, each employee will create an Employee Performance and Development Plan (EPDP). These plans will indicate how employees' tasks are linked to ministry priorities and will identify the level of staff development required to meet the ministry's human resource needs.
- The ministry has revised its fees for outdoor recreation opportunities following the recommendations of the Recreation Stewardship Panel. The ministry will be allowed to retain the revenue generated from these fees to fund outdoor recreation programs. However, if revenues are not as high as expected, the ministry must be able to respond to this situation within its allocated budget. To address this risk, the ministry will track revenues carefully and regularly analyze the demand for the outdoor recreation opportunities that it provides.

More information about these external and internal risk factors, and the ministry's response to them, is provided in Appendix C.

Strategic Shifts and Significant Changes in Policy Direction

In last year's annual report, the ministry set out the strategic shifts identified during the Core Review process and reported on its initial progress toward their achievement. These shifts were also incorporated into the ministry's 2002/2003 - 2004/2005 Service Plan. During 2002/03, the ministry continued to make significant progress in making these shifts, as well as in delivering on the government's *New Era* commitments and focusing on government priorities. (See the "Update on *New Era* Commitments" section.) Although challenges remain in completing the transition, the table below shows some of the initiatives the ministry has undertaken to achieve continuous improvement in managing its resources, streamlining regulations, and establishing standards to ensure effective stewardship of the province's environmental resources.

From	To	Key Initiatives
Ministry as sole protector of the environment.	Shared stewardship — sharing responsibility for the environment with others as appropriate and emphasizing a ministry staff culture of client service.	Wildlife-Human Conflict Prevention Strategy Living Rivers Strategy Climate Change Action Plan Airshed Protection Plans Recreation Stewardship review
Prescriptive approaches using prohibitions and controls.	Setting appropriate environmental standards, and ensuring standards are met.	Streamside Protection regulations Floodplain Management Review Environmental standards and best practices for the *Forest and Range Practices Act*

From	To	Key Initiatives
Unclear accountability for environmental results.	Clear roles for ministry, industry and other stakeholders in the gathering and reporting of environmental information and achieving environmental objectives.	Compliance Strategy Monitoring and Reporting strategies Groundwater regulations Air and water quality monitoring and information network
Well-developed but single-focus ministry initiatives.	Integrated ministry program delivery based on best available science and an ecosystem-based approach.	Biodiversity Strategy Species at Risk Strategy Ministry Interdivision and Science Committees
Constraints on economic development.	Economic development based on clear, reasonable environmental outcomes, with discretion as to how to achieve these outcomes.	Contaminated Sites regulation revision *Waste Management Act* revisions *Pesticide Control Act* regulations revisions
Proprietary information belonging to government.	Public information made available in a transparent, timely and accessible manner.	Web-Information Project

Update on *New Era* Commitments and Key Projects

The *New Era* document contained many far-reaching policy objectives. The ministry has made considerable progress in achieving the key commitments the government made in that document. The ministry has also made progress towards completing other key projects as directed to the Minister. Many initiatives have been completely addressed, whereas others are multi-year in scope. The status of each commitment and project is indicated below, and for the sake of completeness, a complete list of initiatives is provided.

Prohibit logging or mining in provincial parks

- The government has publicly re-confirmed this legislation and policy.

Lift grizzly bear moratorium

- The Minister of Water, Land and Air Protection lifted the blanket moratorium on July 16, 2001, and replaced it with regional moratoriums where specific conservation concerns were identified.
- An independent Grizzly Bear Scientific Panel (charged with reviewing methods and issues considered significant to grizzly bear conservation in British Columbia) submitted its report in March 2003. The report confirmed that the ministry's management of grizzly bears is effective and that sound population estimates are being used.

Ensure decisions on new parks are made in public

- Approval for parks (such as a new Gulf Islands national park and new provincial park at Wakes Cove on Valdes Island) was granted by open cabinet.

Acquire and protect Burns Bog	• The province recognizes that Burns Bog is a globally unique ecosystem, and remains committed to its purchase and preservation. The ministry continues to work with the Ministry of Finance to acquire this property for the citizens of British Columbia at fair-market value, but the price must be affordable to the province.
Implement an improvement plan for threatened airsheds	• The ministry is developing the science and a framework for working with communities to improve air quality.
Oppose Sumas II power project	• The ministry continues to represent British Columbia's interests by participating in National Energy Board (NEB) hearings, supporting an expanded role for the NEB and filing an appeal with the U.S. Environmental Protection Agency.
Maintain ban on bulk water exports	• The government maintains its commitment to the legislation establishing the ban.
Introduce comprehensive groundwater legislation to improve the quality of drinking water	• The government passed amendments to the *Drinking Water Protection Act* to strengthen accountability for the management and delivery of drinking water, and established an advisory board to assist with development of groundwater regulations.
Review the contaminated sites legislation	• The ministry received, and is responding to, the report of the Advisory Panel on Contaminated Sites. • The recommendations of the panel will be used to develop a new legislative, regulatory and policy framework for contaminated sites in the province.
Use science-based standards to protect the environment	• The *Environmental Trends in British Columbia 2002* report was released, which summarizes scientific research on a set of environmental indicators.
Consider the appointment of a Chief Scientist who will advise government from time to time	• The ministry has established an internal committee to provide advice on the acquisition and use of science. • The ministry has established panels of scientific experts to provide advice on specific issues (e.g., the Grizzly Bear Scientific Panel and the AOX Panel).
Enact new or revise legislation to deliver on *New Era* directions	• The ministry is working with partners to update the provincial regulation protecting urban streams and strengthen the role of science professionals. • The government has harmonized its vehicle and diesel regulations with those regulations under the *Canadian Environmental Protection Act* that meet U.S. Environmental Protection Agency standards.

	• The government has passed the Aquaculture Waste Control Regulation to limit waste accumulation on the ocean floor. • The ministry is reviewing the *Wildlife Act* and *Park Act* in order to update legislation in 2005. • The government introduced the Organic Matter Recycling Regulation, which made British Columbia the first jurisdiction in North America to limit the use of recycled organic material in drinking-water watersheds. • In May 2002, amendments to the *Environment Management Act* were introduced to streamline the ministry's process for entering into partnership agreements with government and non-government organizations. The amendments contributed to the development of two agreements: a mutual assistance agreement between the ministry's Conservation Officer Service and the Department of Fisheries and Oceans, Conservation and Protection Service; and the Intergovernmental Mutual Aid Agreement for Problem Wildlife Incidents signed between the ministry and Parks Canada in July 2002.
Promote shared stewardship for the delivery of recreational services	• The Recreation Stewardship Panel has delivered its recommendations for a new model to support fish, wildlife and park recreation. Implementation of the panel's recommendations began in spring 2003 and will be completed by 2005/06. • Preparation to transfer provincial freshwater fish hatcheries to a new non-profit society was completed in March 2003.
Develop a Living Rivers Strategy	• The ministry is working with the Ministry of Sustainable Resource Management and others to develop a strategy by 2004 to improve the province's waterways. • The government has set up a $2-million trust fund to assist in protecting and restoring British Columbia's rivers.
Deliver a results-based Forest Practices Code	• The ministry has worked with the Ministry of Forests and the Ministry of Sustainable Resource Management on the *Forest and Range Practices Act* and regulations. The ministry will continue to work with its private and public sector partners to develop environmental standards and best practices.
Create a trust for private land donations	• The ministry is working with the Ministry of Sustainable Resource Management on developing an approach for establishing this trust.

Encourage a strong private-sector economy that maintains high environmental standards

- The ministry is exploring ways to expand investment in species-at-risk protection and recovery by 2005/06.
- A new AOX Regulation was enacted in July 2002 to appropriately limit discharges of adsorbable organic halides (AOX). A new comprehensive pulp mill standard is part of Phase II of the *Waste Management Act* revision (2004/05).
- The ministry's review of the *Waste Management Act* is expected to result in significant amendments to modernize environmental management: Phase I (2003/04), Phase II (2004/05), Phase III (2005/06).
- The ministry drafted the *Integrated Pest Management Act* for the spring 2003 legislative session to replace existing legislation.
- New guidelines were introduced for coal-fired power boiler emissions, setting target limits that are comparable to neighbouring jurisdictions and are consistent with the province's energy policy.

Ministry Structure

The ministry has organized its operations and functions into "core business areas." In 2002/03, there were three core business areas: Environmental Protection, Environmental Stewardship, and Park and Wildlife Recreation.[1,2] (These are described in the "Performance Reporting" section of this report.)

The ministry's structure supports the services, programs, regulatory reform and other initiatives carried out in each core business area. Figure 1 shows the ministry's organizational chart and the main responsibilities of each division.

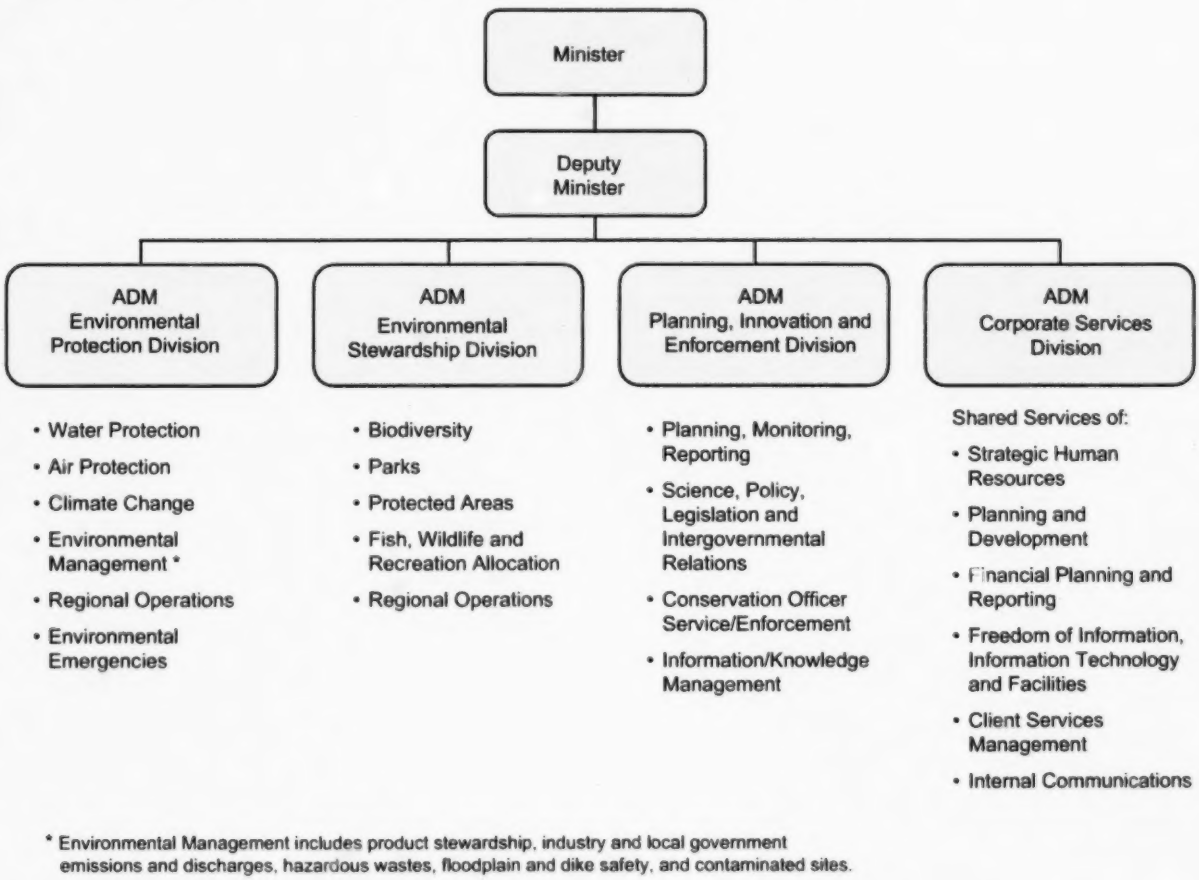
Minister
Deputy Minister
ADM Environmental Protection Division
ADM Environmental Stewardship Division
ADM Planning, Innovation and Enforcement Division
ADM Corporate Services Division
• Water Protection
• Air Protection
• Climate Change
• Environmental Management *
• Regional Operations
• Environmental Emergencies
• Biodiversity
• Parks
• Protected Areas
• Fish, Wildlife and Recreation Allocation
• Regional Operations
• Planning, Monitoring, Reporting
• Science, Policy, Legislation and Intergovernmental Relations
• Conservation Officer Service/Enforcement
• Information/Knowledge Management
Shared Services of:
• Strategic Human Resources
• Planning and Development
• Financial Planning and Reporting
• Freedom of Information, Information Technology and Facilities
• Client Services Management
• Internal Communications
* Environmental Management includes product stewardship, industry and local government emissions and discharges, hazardous wastes, floodplain and dike safety, and contaminated sites.

Figure 1. *Ministry Organizational Chart*

[1] In the ministry's 2003/04 - 2005/06 Service Plan, the Park and Wildlife Recreation core business area has been renamed Park, Fish and Wildlife Recreation.

[2] All ministries were required to include a fourth business area — Executive and Support Services — and associated goal in their 2003/04 - 2005/06 Service Plans. This business area will be delivered by the ministry's Executive Committee, Senior Management Committee, the Planning, Innovation and Enforcement Division and the Corporate Services Division.

As Figure 1 shows, two divisions within the ministry are closely aligned with the core business areas. The Environmental Protection Division has primary responsibility for delivery of programs and services in the Environmental Protection core business area. The Environmental Stewardship Division has primary responsibility for delivery in both the Environmental Stewardship and Park and Wildlife Recreation core business areas. The other divisions and ministry committees collaborate closely with these two in pursuing the ministry's goals.

In 2002/03, the Planning, Innovation and Enforcement Division and the Corporate Services Division delivered cross-ministry services and internal administration in support of all three core business areas. Their work was guided by the Executive Committee and Senior Management Committee. Service delivery was the responsibility of regional staff.

Executive Committee

The Executive Committee provides strategic leadership for the ministry. The Deputy Minister is accountable for all aspects of the ministry's mandate, including management, response to ministerial decisions, stakeholder relations, correspondence management and communications.

The Assistant Deputy Ministers (ADMs) are the operational heads of their divisions. They are accountable for the operational delivery of their division's entire mandate, from policy and program development to regional delivery. They are also responsible for ensuring that cross-division and interministry cooperation takes place on areas of shared concern in environmental management.

Senior Management Committee

The Senior Management Committee, which is made up of branch directors, is the functional strategic planning forum for the ministry and a central vehicle for corporate leadership and management. Senior Management Committee is responsible for policy- and decision-making and organizational development ministry-wide and oversees the Interdivision Committees.

Environmental Protection Division

The Environmental Protection Division works to protect the environment and human health and safety by ensuring clean and safe water, land and air. Through its three branches — Environmental Management, Water, Air and Climate Change, and Environmental Protection Regional Operations — it develops and enacts science-based policies, laws and environmental contracts and covenants to monitor industrial and community development and ensure compliance with established provincial standards. As well, the division sets standards for ambient quality and for discharges and emissions to air, land and water; directs the acceptable remediation (clean-up) of contaminated sites; and acts as key liaison in initiatives focused on response readiness to environmental and human health and safety emergencies.

Environmental Stewardship Division

The Environmental Stewardship Division works to maintain and restore the natural diversity of ecosystems, and fish and wildlife species and their habitats. It also works to provide and enhance park, fish and wildlife recreational services and opportunities.

The division works towards these goals through its four branches — Biodiversity, Parks and Protected Areas, Fish and Wildlife Recreation and Allocation, and Regional Operations. It applies a science-based approach to promote the effective management of fish, wildlife, habitat and park resources and to develop standards for governing the use and allocation of living resources. It also monitors and reports on selected species and habitats, develops protected area management plans, and establishes legislation, partnerships, policies and procedures for park, fish and wildlife recreation.

Planning, Innovation and Enforcement Division

The Planning, Innovation and Enforcement Division shares responsibility for providing effective and efficient planning, support and enforcement to assist core business areas in achieving their goals and objectives. In particular, this division focuses on developing and integrating efficient and effective planning, monitoring and reporting (e.g., State of the Environment reports), and enforces compliance with legislation through the Conservation Officer Service. As well, the division assists the ministry in maintaining relationships and building capacity with partners (such as other government agencies, businesses, industries and non-governmental organizations). It is also responsible for helping the ministry accomplish its strategic shifts and deliver on its commitment to provide improved planning and accountability.

Corporate Services Division

The Corporate Services Division is responsible for financial planning and reporting, human resource planning and development, records and Freedom of Information functions, information technology, and internal communications and support services for the clients it serves. The division manages client accounts, develops ways to monitor and report on service delivery, and develops Corporate Services Division service level agreements and customer surveys in consultation with the Corporate Services Partnership Board.

The division uses a shared-services model to provide the above services to the Ministry of Sustainable Resource Management, the Ministry of Water, Land and Air Protection, the British Columbia Assets and Land Corporation, the Environmental Assessment Office, and the Land Reserve Commission. Its role continues to evolve as the province moves to a government-wide shared services model with the establishment of the BC Public Service Agency and the Ministry of Management Services.

Regional Staff

Most of the ministry's staff is located in nine regions of the province: Vancouver Island, Lower Mainland, Thompson, Okanagan, Kootenay, Cariboo, Skeena, Omineca and Peace. Regional staff in the Environmental Protection, Environmental Stewardship and Planning, Innovation and Enforcement divisions work together in regional offices to encourage teamwork and efficiency. Smaller area offices are located throughout the province to provide a visible presence, enforcement and park operations capacity in local areas.

The map below indicates the location of ministry offices.

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Performance Reporting

The Ministry of Water, Land and Air Protection is committed to excellence in performance reporting. Meeting that commitment requires clear articulation of the results desired from the ministry's programs, policies and services; selection of meaningful measures of success; and fair and credible reporting of performance relative to expected results.

This section outlines the key successes of the ministry in delivering on the 2002/03 performance targets outlined in the 2002/03 - 2004/05 Service Plan.

Core business areas, goals, objectives, strategies, performance measures: how do they fit together?

The ministry's vision and mission statements encapsulate, in a very broad sense, what the ministry is working to accomplish. These guide the strategic direction for the organization overall. How the ministry organizes its operations to pursue that direction is divided by main functions, or *core business area*. For each business area, a *goal* — a statement of general intent that directly supports the achievement of the ministry's vision and mission — defines what the ministry wants to accomplish in that area of endeavour over the long term.

In support of each goal, the ministry sets specific *objectives*. Objectives are statements that define the broad areas in which the ministry will focus and invest. They are based on direction received from the Core Review process. The specific actions or activities required to turn objectives into reality (such as implementation of a new approach to deal with a problem) are called *strategies*. Depending on resource capacity and management priorities, some strategies receive greater focus than others in some years.

To answer the questions "Are the actions having the desired effect?" and "Are the objectives and goals being met?" the ministry adopts a balanced portfolio of *performance measures* (including outcome, output and efficiency measures) to assess how well it is really achieving what it wanted to do.

All of these components in the business planning/budgeting/performance reporting cycle are part of a closely integrated system. Therefore, when an objective is revised or replaced (for example, to better reflect the link between what the ministry is doing and the government's strategic direction), so must the strategies and performance measures associated with it be revised or replaced. This is the cycle of continuous improvement, and it underpins both effective public service planning and meaningful, accountable public performance reporting.

In its 2002/03 - 2004/05 Service Plan, the ministry set out performance measures and initial targets in support of its focus on the following three core business areas and their associated goals and objectives:

Core Business Areas	Goals	Objectives
Environmental Protection	1. Protect human health and safety by ensuring clean and safe water, land and air.	• Clean Air and Climate Change — Limit air pollution and contribute to meeting global atmospheric objectives. • Clean Water — Ensure safe, high-quality drinking water and reduce effluent discharges that impact water quality. • Land Protection — Reduce/remove toxins and wastes that contaminate land. • Environmental Emergencies — Readiness to respond to high-risk environmental emergencies.
Environmental Stewardship	2. Maintain and restore the natural diversity of ecosystems, and fish and wildlife species and their habitat.	• Species at Risk — Identify, protect and restore species at risk and their habitat. • Wildlife and Wild Fish — Manage and protect fish, wildlife and their habitat. • Habitat Conservation — Manage conservation in parks and protected areas system. • Sustainable Development — Assist industry, local government and business to develop sustainably.
Park and Wildlife Recreation	3. Provide park and wildlife recreational services and opportunities to British Columbians and visitors.	• Hunting, Angling and Wildlife Viewing Opportunities — Manage/ allocate fish and wildlife for angling, hunting and viewing, and provide wilderness recreation opportunities. • Parks Recreation — Provide, through private operators, camping and day use in Parks.

Performance Reporting: A Process of Continuous Improvement

During the inaugural year of the Service Plan, many of the performance measures adopted were output measures, clear statements of the deliverables the ministry was committed to achieving through its regulatory reform projects (such as "overhaul of the *Pesticide Control Act*") or were related to operational processes (such as "timely distribution of annual freshwater sport fishing synopsis"). As the ministry's understanding and capacity for performance measurement improve, emphasis has been increasingly placed on a few critical output and outcome measures. These measures reflect the impact that the ministry intends its actions to have on client service and intermediate and long-term outcomes. This shift is apparent when one compares the 2002/03 - 2004/05 Service Plan with the 2003/04 - 2005/06 Service Plan.

Effects of the Shift to Results-Based Performance Measures

A major restructuring of the ministry was undertaken in January 2002 to better align the organization with the direction established by the Core Review process. That review process also prompted the ministry to adopt a results-based approach to measuring performance. Since January 2002, the ministry has spent considerable effort on refining its programs, policies and services. This period of transition has offered the ministry many opportunities for assessment and continuous improvement in aligning its goals, objectives and performance measures.

The 2002/03 Annual Service Plan Report discloses the ministry's successes, challenges and changes in these areas.

Assessing results rather than processes or projects requires using performance measures that focus on the effects that programs and services have on the environment and the ministry's public and other clients (outcomes) — not focusing on the effects of the processes and projects themselves (outputs). For this reason, many of last year's performance measures have been replaced in the current 2003/04 - 2005/06 Service Plan. Nevertheless, the processes are still considered to be important methods for achieving the ministry's objectives and have therefore become strategies in the new Service Plan; and the projects have become key deliverables in their respective core business area. The new performance measures (which will be reported on in next year's Annual Service Plan Report) are expected to better reflect desired environmental outcomes and to measure the quality of service provided to ministry clients.

The Challenge of Developing Good Measures for Environmental Performance Reporting

Developing good performance measures is a challenge shared by most environmental agencies. For example, it is difficult for the ministry to develop environment-related performance outcomes that will give an accurate indication of ministry performance and be

those for which the organization can reasonably be held accountable. There are three main reasons for this challenge.

- There is often a time lag between taking an action (output) and its impact on the environment (outcome). If the performance measure captures short-term environmental outcomes, it may appear that a particular action or strategy by the ministry has failed — even when it is actually being effective. There is always a risk that the action and the performance measure will be withdrawn before data analysis can properly assess the appropriateness of the ministry's performance.
- Environmental issues are extremely complex, and are often the result of numerous variables at work together. Thus, a particular result (outcome) might be attributed to a certain ministry action (output), when in fact the outcome has been produced by another action or a number of other variables. The danger therefore exists of the ministry incorrectly concluding that a certain output is responsible for bringing about a favourable (or unfavourable) outcome, when really there is no direct causal relationship between the two.
- The ministry does not have sole responsibility for the protection and stewardship of the environment. Many actions are a shared responsibility and involve the cooperation of many players — all levels of government, First Nations, industry, community groups and others. Therefore, while the ministry might be taking effective action, the performance measure may reflect the presence or absence of effective effort by other responsible players.

The rest of this section presents detailed information about the ministry's performance in attaining the targets it set in the 2002/03 - 2004/05 Service Plan for the 2002/03 fiscal year. The information is reported by each of last year's three core business areas and, under those, by goal and associated objectives. Included for each performance measure is the rationale for selecting the measure, the ministry's performance relative to the target identified in the Service Plan, and other key issues related to the measure. Where appropriate for some key measures, trend information is also presented (in graphs or tables) to provide readers with a greater understanding of the results over time. Given the limitations in the ministry's financial data, resource information by objective has not been presented. The ministry is working to address this issue. For details, see the "Report on Resources" section.

For further information about the reliability and limitations of the data reported, see Appendix D — Performance Results: Data Completeness and Reliability. For definitions of distinct ministry terms or uncommon terms, see Appendix A — Glossary.

Core Business Area: Environmental Protection

Scope

The core business area of Environmental Protection is led primarily by the Environmental Protection Division. Key programs and services in this business area relate to overseeing the environmental regulation of industries, promoting sustainable environmental practices in communities and monitoring industrial and community development to ensure compliance

with established provincial environmental standards. These functions are aimed at protecting the health of British Columbians by improving the quality of air, land and water in the province. They also reflect the government's priority of ensuring a strong, private sector economy that maintains high environmental standards.

Goal 1: Protect human health and safety by ensuring clean and safe water, land and air.

In the 2002/03 - 2004/05 Service Plan, the ministry articulated its objectives for this goal in terms of protecting air, water and land and responding to environmental emergencies. In addition to assigning specific strategies for those objectives, it also identified a number of strategies that were not objective-specific, but pertained to all of them.

As discussed earlier in this report, the ministry is making significant changes in the way it delivers its environmental mandate. Its aim is not only to reduce its own costs and the costs incurred by those who must meet environmental standards, but also to reduce conflicts and litigation, eliminate service backlogs and focus efforts in areas where there is the greatest risk to the environment. To achieve this aim, the ministry is shifting from a prescriptive approach for environmental regulation to a science- and results-based approach — one with clear results-based standards and workable regulation. The review of the *Waste Management Act*, for example, will likely result in changes to a number of the ministry's processes and outputs, some of which are addressed in performance measures in the Service Plan.

The information presented below describes the achievements and challenges associated with each performance measure used in the 2002/03 - 2004/05 Service Plan for this goal. Each performance measure is linked to the ministry objective it assesses, and the rationale for the choice of each measure is explained.

Strategies Supporting All Objectives of Environmental Protection

The 2002/03 - 2004/05 Service Plan identified the following strategies that support the goal and all of the objectives of Clean Air and Climate Change, Clean Water, Land Protection, and Environmental Emergencies:

- Implement industry-led pollution prevention planning at large industrial sites.
- Simplify environmental regulations and standards, especially for low- and medium-priority operations.
- Implement high-priority monitoring and reporting on air, surface water and groundwater quality (and continued opposition to bulk water exports).
- Provide compliance and enforcement services targeting high-risk activities.
- Conduct permit authorizations and inspections of high-risk industrial and municipal discharges and high-risk contaminated sites.
- Undertake a comprehensive review of contaminated sites administration by mid-2003.
- Phase-out permitting for low- and medium-risk waste management sites, where appropriate.

Performance Measures Supporting All Objectives of Environmental Protection

Municipal/industrial sectors for which the ministry has established clear, up-to-date performance expectations

Performance Measure	2001/02 Actual	2002/03 Target	2002/03 Actual	2002/03 Variance
Municipal/industrial sectors for which the ministry has established clear, up-to-date performance expectations.	Organic matter recycling regulation is in place and environmental standards for aquaculture industry developed; AOX standards enacted by regulation to appropriately limit discharges of AOX.	Oil industry stewardship program.	Oil industry stewardship program expanded in January 2003.	Target met.
		Amendment of Contaminated Sites Regulation.	Contaminated Sites Regulation reviewed by Advisory Panel. First phase of legislative changes was prepared for introduction in spring 2003 legislative session.	Awaiting review of legislative changes. Work in progress on further changes to contaminated sites regulatory regime.
		Overhaul of *Pesticide Control Act*.	New legislation was prepared for introduction in spring 2003 legislative session.	Awaiting review of new legislation. Timing depends on dates of legislative session and government priorities.

Source: Ministry of Water, Land and Air Protection

Rationale for the Performance Measure

Linked directly to its vision, mission and the goal of protecting human health and safety, the ministry is responsible for setting clear and up-to-date environmental standards for all municipal and industrial sectors across the province. Such standards allow the sectors to operate with greater certainty, knowing what is expected of them in terms of environmental protection and pollution prevention. This performance measure marks the ministry's progress in completing several important initiatives (outputs) that are related to the assessment and management of sources of significant environmental risk.

Achievements and Key Issues

The ministry succeeded in fully meeting one of the three targets it set for this measure in 2002/03, making significant progress in another and paving the way for completion of the third.

- In January 2003, the Minister announced that the oil industry stewardship program would be expanded to include used lubricating oil filters and oil containers. This program ensures that a wide range of oil products is disposed of in a cost-effective and environmentally responsible manner. Funding for the expanded program will come from brand owners and consumers; and the British Columbia Used Oil Management Association, a non-profit organization led by the industry, is managing the program. Once the program has been fully implemented (which is expected to be in 2005), used oil recovery is expected to increase from the current 46 million litres to 64 million litres, oil filters from 2 million to 5.6 million, and empty oil containers from 300,000 kilograms to 1.8 million kilograms on an annual basis.
- On May 14, 2002, the Minister appointed an advisory panel to review a number of key components of the contaminated sites regulatory regime and consult with citizens and stakeholders on needs, issues and expectations. The panel issued an interim report to the Minister in September 2002. The final report was issued to the Minister in February 2003. The recommendations of the panel are being used to develop a new policy framework for the regulation of contaminated sites in the province, including legislative changes prepared for introduction in the spring 2003 legislative session.
- The ministry worked to replace the existing legislative provisions in the *Pesticide Control Act* with a more standards-based approach to regulating pesticide use in British Columbia. In 2002/03, the ministry wrote new legislation and was expecting the new *Integrated Pest Management Act* to be introduced and reviewed during the spring 2003 legislative session.

In September 2002, the ministry launched a major review of the *Waste Management Act's* environmental protection provisions. This review — which supports the government's *New Era* commitment to adopt a science-based approach to environmental management — will, in combination with the deregulation initiative, ultimately affect the timing and scope of other ministry environmental protection initiatives. Progress on the *Waste Management Act* review and related initiatives will continue to be reported in future years.

Compliance with standards (includes municipal and industrial sectors for which results-based standards or regulations are already in place, e.g., asphalt, municipal sewage).

Performance Measure	2002/03 Target	2002/03 Actual	2002/03 Variance
Compliance with standards (includes municipal and industrial sectors for which results-based standards or regulations are already in place, e.g., asphalt, municipal sewage).	Measure to be developed in 2002/03.	Work conducted on developing the ministry's overall compliance strategy, of which compliance reporting will be a part.	Ministry approach to compliance is under review.

Source: Ministry of Water, Land and Air Protection

Rationale for the Performance Measure

With the ministry's shift from a prescriptive approach to a results-oriented approach using science-based standards, it was recognized that monitoring compliance with environmental standards will be a key ministry activity for attaining environmental protection objectives.

Achievements and Key Issues

The ministry continued in 2002/03 to conduct inspections and, where non-compliance was detected, appropriate investigations and enforcement actions were taken.

The review of the *Waste Management Act*, combined with the ministry's development of a compliance strategy, are together addressing this performance measure. As well, the critical issue of compliance is now included in a new environmental protection objective in the 2003/04 - 2005/06 Service Plan to "streamline standards and improve monitoring, reporting and compliance"; and in a strategy to "target compliance initiatives at situations posing high risks to human health or the environment."

A key ministry achievement in 2002/03 related to compliance was the establishment of a call centre. A partnership with the Provincial Emergency Program, the centre enables the public to phone in reports of environmental violations or concerns. This not only puts into action the ministry's commitment to shared stewardship, but it will provide the ministry with important information it can use to identify priority compliance issues and resource allocation needs to support monitoring and enforcement efforts. The 2003/04 - 2005/06 Service Plan includes an additional performance measure related to call centre trends to inform decision-making for allocating compliance resources.

Frequency of inspections of high-risk authorizations

Performance Measure	2001/02 Actual	2002/03 Target	2002/03 Actual	2002/03 Variance
Frequency of inspections of high-risk authorizations.	Variable inspection rate for 90 high-risk sites.	Minimum of annual inspection for each site.	77 high-risk sites were inspected, some more than once where risk was considered particularly high. Total inspections/ visits: 215.	The 13 sites not inspected were not considered to be high risk in 2002/03.

Source: Ministry of Water, Land and Air Protection

Rationale for the Performance Measure

Compliance with environmental standards is required if environmental protection objectives are to be met. For sites where authorizations allow the discharge of contaminants that pose a high risk to the environment, ensuring compliance is especially important. Regular inspections are one way the ministry can detect non-compliance and create an incentive for high-risk sites owners to comply with their authorizations.

Achievements and Key Issues

In 2002/03, the ministry carried out 215 site inspections or visits on 77 of the target 90 high-risk sites. The 13 sites not inspected were those where the high-risk status had been reassessed and deemed to be of lower risk.

Timeliness of issuing waste management authorizations

Performance Measure	2001/02 Actual	2002/03 Target	2002/03 Actual	2002/03 Variance
Timeliness of issuing waste management authorizations.	28 months (status quo permit system)	0–6 months for non-permit approvals; 12–24 months for remaining high-risk detailed approvals.	Data on timeliness not available, but 240 permit processing decisions made and backlog reduced from 298 to 75.	Process for collecting data on timeliness of issuing non-permit approvals was not in place. Not enough time has elapsed for data to be available for high-risk approvals.

Source: Ministry of Water, Land and Air Protection

Rationale for the Performance Measure

Fostering economic development is part of the ministry's mission and also supports the government's goal of building a strong and vibrant provincial economy. Removing unnecessary impediments to business is essential to do this. In the past, companies requiring a waste management authorization to operate had to wait an average of 28 months for their application to be processed. A key objective of the *Waste Management Act* review is to make the legislative changes needed to enable more timely response. This timeliness measure was selected to help the ministry monitor its progress in reducing the administrative delay.

Achievements and Key Issues

Rather than develop a tracking system for this measure, resources have instead been allocated to the review of the *Waste Management Act* and to the reduction of the backlog in authorization requests. Significant progress in the latter was made during 2002/03, with the backlog being reduced by 75%, from 298 to 75.

The issue of timeliness in receiving approval for applications is a very important one to the ministry. It has therefore been incorporated into the 2003/04 – 2005/06 Service Plan as part of an additional environmental protection objective to "streamline standards and improve monitoring, reporting and compliance." It is also included in a related strategy. Linked to this objective and strategy is a new performance measure that has been identified to monitor the time required to process approval requests for contaminated sites. Additional performance measures may be developed, as appropriate, after the *Waste Management Act* review.

Objective: Clean Air and Climate Change — Limit air pollution and contribute to meeting global atmospheric objectives.

The 2002/03 - 2004/05 Service Plan identified the following strategies for this objective:

- Develop airshed planning framework, policy and advocacy (continued opposition to Sumas II power project).
- Adopt vehicle and fuel standards established through U.S. Environmental Protection Agency and Canadian *Environmental Protection Act*.
- Develop climate change strategy by the end of 2002.

Performance Measures

Percentage of communities meeting the provincial air quality objective for PM_{10} of 50 µg/m3

Performance Measure	2002/03 Target	2002/03 Actual	2002/03 Variance
Percentage of communities meeting the provincial air quality objective for PM_{10} of 50 µg/m^3 (24-hour average).	55% of communities	58% of communities met the target (22 of 38 communities)	Target exceeded.

Source: Ministry of Water, Land and Air Protection

Rationale for the Performance Measure

Particulate matter (PM) is the outdoor air contaminant of most concern in British Columbia from a human health perspective. It originates from a variety of natural and human-related sources such as factories, power plants, cars, construction activity, fires and windblown dust. It is also formed in the atmosphere from the reactions involving various gases.

Exposure to particles smaller than 10 µm (PM_{10}) can affect people's breathing, aggravate existing respiratory and cardiovascular disease, alter the body's defence systems and damage lung tissue, which contributes to cancer and premature death. Particles smaller than 2.5 µm are believed to pose the greatest health risk. Even very low concentrations of PM_{10} and $PM_{2.5}$ are linked to health impacts. Use of this performance measure is designed to help the ministry determine how effectively it is achieving its air quality improvement targets.

Achievements and Key Issues

The results in the table refer to percentage of *monitored* communities that achieve the specified air quality objective. In 2002/03, the target of 55% was slightly exceeded. (Important to note, however, is that the communities included in the sampling are only those that have had air quality problems from particulate matter. When a community's air quality problems have been resolved, monitoring equipment is moved to another area that requires attention. Trend results must therefore be interpreted carefully because they may

not accurately reflect whether air quality has been improving in the monitored communities if the sample of communities being monitored has changed.)

At the same time, the ministry continued in 2002/03 to support several important initiatives related to protecting or improving air quality in the province:

- Efforts have been focused on improving our understanding of $PM_{2.5}$ sources and levels in British Columbia, including expanding the provincial monitoring network to include more $PM_{2.5}$ monitors. In the 2003/04 – 2005/06 Service Plan, the PM_{10} measure has been replaced with a performance measure based on $PM_{2.5}$, which is also used in the government Strategic Plan.
- Work is underway to develop both an airshed planning guide for local governments and an implementation plan for improvement of degraded airsheds and maintenance of clean airsheds across the province.
- Funding support was provided to airshed planning committees in the Capital Regional District, the South and Central Okanagan, Kamloops and Nelson.
- Funding and technical support continued to be provided for airshed activities in the Greater Vancouver Regional District, the Fraser Valley Regional District, Prince George, Quesnel, Williams Lake, Kelowna and Golden.
- A number of technical studies are underway, aimed at better informing air management decisions at the provincial or airshed level. The studies are assessing:
  - areas of degraded air quality,
  - the impacts of air pollution on human health and the environment,
  - contributing sources (including a provincial emissions inventory for base year 2000),
  - meteorology's role in degraded air quality, and
  - tools to better predict the impact of sources on air quality.

As part of its *Waste Management Act* Review, the ministry is also looking at making changes to the air management system. Stakeholder input on potential changes is being invited through feedback on the *Clean Air Issues Paper*, a discussion paper that presents a number of options for addressing deficiencies in the current air management system.

Total greenhouse gas emissions in British Columbia

Performance Measure	2002/03 Target	2002/03 Actual	2002/03 Variance
Total greenhouse gas emissions in British Columbia.	No target was identified.	Development of the Climate Change Action Plan for British Columbia is in progress. The plan will include an emission reduction target.	None.

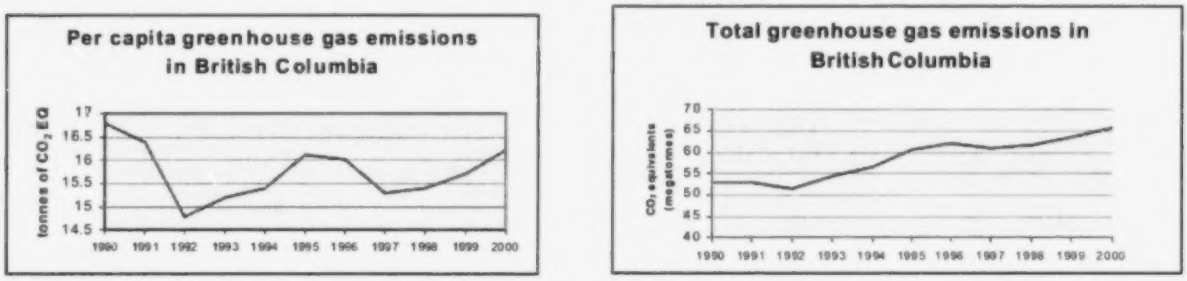
Source: Ministry of Water, Land and Air Protection

Rationale for the Performance Measure

There is widespread agreement among scientists that elevated levels of greenhouse gases (GHGs) in the atmosphere are causing changes to global climate. The 1997 Kyoto Protocol would commit ratifying countries to reducing their GHG emissions. British Columbia is participating with other jurisdictions in Canada to address this high-profile issue, which has potentially significant economic implications.

Achievements and Key Issues

British Columbia's GHG emission reduction target is being set as part of the development of the provincial Climate Change Action Plan. Completion of that plan is expected in 2003. Decisions regarding targeted emission reductions are to be based on emission levels in 1990 (the base year) — 51.2 megatonnes of CO_2 equivalent. By comparison, emissions of 65.0 megatonnes were measured in 2001. The graphs in Figure 2 show total and per capita greenhouse gas emissions in British Columbia from 1990 to 2000.



Source: Environment Canada. 2002. *Canada's Greenhouse Gas Inventory 1990–2000*

Figure 2. *Total and per capita greenhouse gas emissions in British Columbia from 1990 to 2000*

Many issues need to be addressed before meaningful reporting on this performance measure can occur annually. For example, it is expected that a long-term target will be established for GHG emission reductions rather than yearly targets, and the data for this measure is usually not available until two years after the year in which the emissions occur.

The ministry will have a key role in working with other ministries to implement measures aimed at reducing GHG emissions since there are many sources of greenhouse gases. However, the amount of total emissions is strongly influenced by numerous factors beyond the control of the ministry (factors such as energy prices, economic activity and population growth).

Objective: Clean Water — Ensure safe, high-quality drinking water and reduce effluent discharges that impact water quality.

The 2002/03 - 2004/05 Service Plan identified the following strategy for this objective:

- Improve drinking water source protection, through amended *Drinking Water Protection Act* and groundwater legislation by fall of 2002.

Performance Measures

Trend of surface water quality

Performance Measure	2001/02 Actual	2002/03 Target	2002/03 Actual	2002/03 Variance
Trend of surface water quality	26 monitored water bodies	Increase number of water bodies where trend reporting is possible.	30 water bodies monitored.	Target met.

Source: Ministry of Water, Land and Air Protection

Rationale for the Performance Measure

British Columbia has 25% of the flowing fresh water in Canada. Ongoing monitoring, protection and management of these water resources are of critical importance.
The government is committed to increasing the number of surface water monitoring stations in the province. Expanded monitoring is part of the ministry's strategic shift to implementing a results-based approach to environmental management. This performance measure allows the ministry to determine its progress in achieving that strategic shift.

Achievements and Key Issues

In 2002/03, the ministry met its target of increasing the number of water bodies it monitors, adding 4 to the 26 it monitored in 2001/02. One limitation for this performance measure is that simply increasing the number of water bodies monitored (a ministry output) does not mean that the objective of clean water is being achieved.

Given the ministry's shift to setting and measuring environmental outcomes, and desire to more closely align its goals, objectives and performance measures with the government's, this measure has been replaced in the new ministry Service Plan. Used instead will be an outcome measure of water quality in 30 water bodies monitored under a federal/provincial agreement. This measure is also used in the government Strategic Plan.

The new measure will monitor trends in the presence of environmentally significant variables, such as metals and nutrients, which will indicate the cumulative effect of multi-agency land use activities and resource management activities in source watersheds.

Testing and trends for nitrates in groundwater

Performance Measure	2001/02 Actual	2002/03 Target	2002/03 Actual	2002/03 Variance
Testing and trends for nitrates in groundwater	Some wells deteriorating in Abbotsford, Grand Forks and Osoyoos	Maintain monitoring capacity in the three critical aquifers.	Monitoring in 3 critical aquifers maintained. Nitrate monitoring expanded to 15 other community aquifers.	Target exceeded.

Source: Ministry of Water, Land and Air Protection

Rationale for the Performance Measure

Approximately 750,000 people in British Columbia depend on groundwater sources for their drinking water. This performance measure was selected to address concerns about declining water quality in three critical aquifers in Abbotsford, Grand Forks and Osoyoos. It is an output measure that reflects ministry effort in monitoring water quality in these areas.

Achievements and Key Issues

The ministry was able to exceed the target because of the monitoring assistance it received through partnerships with Environment Canada and local stewardship groups.

This output measure has not been included in the ministry's new Service Plan, however, being included instead as a part of a strategy for achieving the clean water objective.

Number of aquifers identified and classified

Performance Measure	2001/02 Actual	2002/03 Target	2002/03 Actual	2002/03 Variance
Number of aquifers identified and classified.	551	488*	593	Target exceeded.

Source: Ministry of Water, Land and Air Protection

* Because fiscal year data was not yet available when the 2002/03 - 2004/05 Service Plan was published in February 2002, target and actual performance amounts may sometimes be out of step. For example, at the end of 2001/02, a total of 551 aquifers had been identified and classified — an amount that already exceeded the targeted total set in the Service Plan for 2002/03 and 2003/04. In an attempt to address this, the target has been clarified in the 2003/04 - 2005/06 Service Plan as an "additional 50" aquifers to be identified and classified each year.

Rationale for the Performance Measure

Most usable groundwater comes from aquifers, natural water-bearing geologic formations or subsurface reservoirs. Approximately 1,000 aquifers have been developed in British Columbia, and an inventory of these is being compiled to identify, delineate and classify

each one's level of groundwater use and vulnerability to contamination. This information will enable the ministry to determine protection requirements, set groundwater management priorities, and implement management initiatives, particularly for drinking water supplies. Ministry progress in collecting this critical data can be assessed with this performance measure.

Achievements and Key Issues

Forty-two additional aquifers were identified and classified in 2002/03, bringing the total in the inventory to 593 — almost 60% of the total number of developed aquifers in the province.

Although it would be preferable to have an outcome measure for this issue (i.e., a measure of groundwater quality), this output measure of the number of aquifers identified and classified is a useful indicator of the extent to which the ministry has the information necessary to identify vulnerability to water quality problems in individual aquifers.

Objective: Land Protection — Reduce/remove toxins and wastes that contaminate land.

The 2002/03 - 2004/05 Service Plan identified the following strategy for this objective:

- Improve and expand product reuse and recycling business approach by end of 2004.

Performance Measure

An appropriate measure relating to industry-led product stewardship

Performance Measure	2002/03 Target	2002/03 Actual	2002/03 Variance
An appropriate measure relating to industry-led product stewardship.	Measure to be developed in 2002/03.	New measure was identified in new Service Plan.	Target met.

Source: Ministry of Water, Land and Air Protection

Rationale for the Performance Measure

Many Canadian provincial and international jurisdictions are working to find ways to extend producer responsibility for the treatment or disposal of post-consumer products. Industry-led product stewardship programs are being encouraged, which is consistent with the ministry's shifts to shared stewardship and a results-based rather than prescriptive approach to environmental management. With this approach, it is possible to focus efforts on reducing waste from product categories that pose relatively high risks to the environment (e.g., paint and used oil).

Achievements and Key Issues

A common method of measuring trends in the amount of waste disposed on land over time is to compare changes in total volume or percentage change. However, such a measure does not take into account the risk or damage to the environment that can result from disposal of different types of waste. The associated data may therefore not accurately reflect changes in actual environmental conditions.

The performance measure the ministry developed for this in the 2003/04 - 2005/06 Service Plan is "number of product categories with industry-led product stewardship." This measure will be easy to monitor at minimal cost. One limitation, though, is that the ministry is not solely responsible for attaining the targets related to this measure, and so cannot be totally accountable for its achievement. However, since efforts to develop stewardship programs are tending to focus on product categories that present the greatest risk, an increase in the number of product categories with industry-led product stewardship should be a reasonable indicator of success in removing high-risk discharges from the waste stream.

Objective: Environmental Emergencies — Readiness to respond to high-risk environmental emergencies.

The 2002/03 - 2004/05 Service Plan identified the following strategies for this objective:

- Test industry, agency and ministry toxic spill emergency response plans.
- Expand industry responsibility for response to and clean-up of spills.

Performance Measure

Number of toxic spill emergency response plans tested

Performance Measure	2002/03 Target	2002/03 Actual	2002/03 Variance
Number of toxic spill emergency response plans tested (ministry plans, industrial plans, response agency plans).	Ministry plans: 2 approved, 1 tested. Industrial plans: 7 tested. Response agency plans: 2 tested	No plans were tested. There were more than 3,000 spill incidents in 2002/03. The ministry made considerable progress towards shifting responsibility for low- and medium-risk spills to industry and other partners and responded to the nearly 300 high-risk spills.	Program is adopting a new risk-based approach to identifying spills.

Source: Ministry of Water, Land and Air Protection

Rationale for the Performance Measure

The purpose of this output measure is to indicate the ministry's performance in testing emergency response plans, which supports the objective of "readiness to respond."

Achievements and Key Issues

This program is in transition. No plans were tested in 2002/03 because it was considered a more effective use of ministry resources to focus on the program's transition to increasing the use of partnerships and expanding industry responsibility for responding to low- and medium-risk spills. The ministry made considerable progress in these areas in 2002/03. This will enable it to focus on high-risk spills, a move that is consistent with the ministry's overall approach of focusing on high-risk issues. This performance measure has not been included in the new Service Plan, reflecting the shift to outcome measures. Nevertheless, testing emergency response plans continues to be included in the 2003/04 – 2005/06 Service Plan as a strategy to help achieve the objective.

Core Business Area: Environmental Stewardship

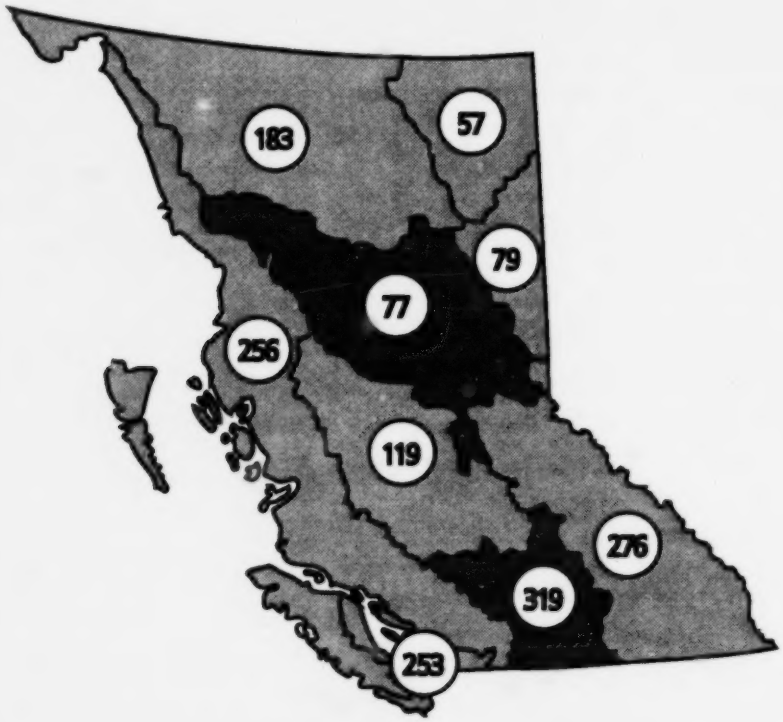
Scope

The core business area of Environmental Stewardship is led primarily by the Environmental Stewardship Division. Key programs and services in this business area focus on stewardship activities to maintain and restore the natural diversity of ecosystems, as well as fish and wildlife species and their habitats. To achieve this goal, this area is responsible for working with other ministries, industries, communities and governments to establish standards for governing the use and allocation of living resources. These functions reflect the government's priority of shared stewardship and sustainable economic development.

Goal 2: Maintain and restore the natural diversity of ecosystems, and fish and wildlife species and their habitat.

The 2002/03 – 2004/05 Service Plan contains an objective for each of three different program areas under this goal: species at risk, wildlife and wild fish, and habitat conservation in parks and protected areas. The objectives have been restated in the 2003/04 – 2005/06 Service Plan to reflect key components of the approaches being used by the ministry to achieve its goals, including implementing shared stewardship and science- and results-based approaches.

During 2002/03, the ministry continued to focus on improving its performance measures for this goal. Some performance measures from the 2002/03 – 2004/05 Service Plan have been replaced with new ones in the 2003/04 – 2005/06 Service Plan to support the restated objectives, more effectively monitor environmental outcomes or progress in implementing the new approaches, and better link with the government's strategic plan.



Source: Ministry of Sustainable Resource Management, Conservation Data Centre, 2001

Figure 3. *Number of Threatened, Endangered or Special Concern Species*

Figure 3 provides an overview of the number of species at risk and their location throughout the province. The Southern Interior ecoprovince has the largest number of species at risk (319), followed by the Southern Interior Mountains (276), Coast and Mountains (256), and the Georgia Depression (253).

The information presented below describes the achievements and challenges associated with the performance measures used in the 2002/03 - 2004/05 Service Plan for this goal. Each performance measure is linked to the ministry objective it assesses, and the rationale for the choice of each measure is explained.

Objective: Species at Risk — Identify, protect and restore species at risk and their habitat.

The 2002/03 - 2004/05 Service Plan identified the following strategies for this objective:

- Develop Provincial Biodiversity Strategy by 2004.
- Support industry-led recovery strategies for species at risk.
- Harmonize with federal government on protection of species at risk and stream protection measures by 2005.

Performance Measure

An appropriate species management measure reflecting Biodiversity Strategy and priority-setting

Performance Measure	2002/03 Target	2002/03 Actual	2002/03 Variance
An appropriate species management measure reflecting the Biodiversity Strategy and priority-setting.	Measure to be developed in 2004/05	There was no deliverable for 2002/03. Two new measures related to species management were identified in the new Service Plan.	None.

Source: Ministry of Water, Land and Air Protection

Rationale for the Performance Measure

Biodiversity refers to life in all its forms and the habitats and natural processes that support it, and encompasses genetic, species and ecosystem diversity. Biodiversity is a commonly used indicator of environmental sustainability, and as such is a key factor in achieving industry, societal and government sustainability commitments.

In British Columbia, biodiversity is affected by a number of pressures. This performance measure was selected to help track the ministry's effectiveness in protecting and restoring species of concern.

Achievements and Key Issues

The target for development of this measure was originally set for 2004/05. This was moved forward, however, with the identification in the 2003/04 - 2005/06 Service Plan of two new measures related to species management.

- An outcome measure — *the percentage of known native species that are threatened or endangered in the province* — is in both the new Service Plan and the government's strategic plan. Measures of species at risk are used nationally and internationally to indicate the status of biodiversity.
- An output measure — *the number of nationally listed species at risk being addressed by recovery teams* — will indicate ministry progress towards meeting requirements under federal endangered species legislation.

Objective: Wildlife and Wild Fish — Manage and protect fish, wildlife and their habitat.

The 2002/03 - 2004/05 Service Plan identified the following strategy for this objective:

- Support industry-led identification of potential Wildlife Habitat Areas (under Forest Practices Code).

Performance Measure

Number of established Wildlife Habitat Areas

Performance Measure	2001/02 Actual	2002/03 Target	2002/03 Actual	2002/03 Variance
Number of established Wildlife Habitat Areas (WHA).	65 WHAs	75 WHAs	86 WHAs	Target exceeded

Source: Ministry of Water, Land and Air Protection

Rationale for the Performance Measure

Wildlife Habitat Areas (WHAs) are mapped areas of Crown land that contain habitat (such as for breeding, feeding and denning) critical to identified wildlife species. Within WHAs, mandatory practices are specified, including measures to protect plant communities and species at risk from development impacts while recognizing forestry's social and economic benefits.

This performance measure was selected because WHA designation is one of British Columbia's major mechanisms for protecting the habitat of threatened and endangered species, as required under the National Accord for the Protection of Species at Risk.

Achievements and Key Issues

Tracking the "number of established WHAs" is an indicator of the ministry's progress towards attaining its objective of managing and protecting fish, wildlife and their habitat. In 2002/03, the ministry established 86 WHAs, 11 more than its target for the year. It accomplished this with the support of contractors funded by the Forest Investment Account.

However, with new objectives set in the 2003/04 - 2005/06 Service Plan, this performance measure (an output measure) is not included because other measures have been identified that are more directly linked to environmental outcomes regarding the status of species. Protection of habitat for wildlife is still included in several strategies in the new Service Plan.

Objective: Habitat Conservation — Manage conservation in Parks and protected areas system.

The 2002/03 - 2004/05 Service Plan identified the following strategies for this objective:

- Continue park management planning and ensure protected areas have approved management direction.
- Respond to known significant threats in protected areas.

Performance Measures

Number and percentage of protected areas with approved management direction

Performance Measure	2001/02 Actual	2002/03 Target	2002/03 Actual	2002/03 Variance
Number and percentage of protected areas with approved management direction.	226	555	520	89% of target met; shortfall (35) expected to be met in early 2003/04.
(Total number of protected areas = 807)	28%	69%	64%	

Source: Ministry of Water, Land and Air Protection

Rationale for the Performance Measure

The protected areas network is an integral part of British Columbia's strategy to protect the province's biological diversity and to enable people to visit and enjoy nature. Protected areas have become an important component of land use planning, contributing to the maintenance of ecosystems, species and genetic resources, as well as economic opportunities related to tourism and recreation opportunities. The management planning program of the Environmental Stewardship Division consists of management direction statements and plans that provide both long-term vision and guidance for the day-to-day stewardship, management and development of protected areas.

- Management direction statements describe significant protected area values and management issues, and recommend priority objectives, strategies and actions to respond to these issues. They provide direction where a more extensive protected area management plan is not required or feasible.
- Management plans, in contrast, provide a more comprehensive statement of objectives and strategies for the conservation, development, management and interpretation of the protected area, and normally include substantive public involvement in their preparation.

The ministry is striving to put in place "approved management direction" for all protected areas as soon as possible.

This performance measure provides an indication of the ministry's progress in having the information required to conserve habitat in the protected areas system, while identifying areas suitable for increased tourism activities. It is an important ministry output for which data is readily available at minimal cost.

Achievements and Key Issues

The target for 2002/03 was for approved management direction to be provided for an additional 329 protected areas (to more than double the number of areas with approved management direction as of the end of 2001/02). Direction was provided for an additional 294 protected areas (89% of the target). The remaining 35 protected areas are expected to be addressed in the first quarter of fiscal year 2003/04.

This output measure is a proxy for the desired outcome of habitat conservation that would result from the implementation of the management direction for protected areas. This performance measure has been included in the 2003/04 - 2005/06 Service Plan, but only the number of protected areas with approved management direction will be reported. The percentage is not as meaningful because the total number of protected areas in the system will change as a result of implementation of decisions from land use planning processes.

Number of responses to known significant threats in protected areas

Performance Measure	2001/02 Actual	2002/03 Target	2002/03 Actual	2002/03 Variance
Number of responses to known significant threats in protected areas.	130	80	135	Target exceeded

Source: Ministry of Water, Land and Air Protection

Rationale for the Performance Measure

Conservation of protected areas is key to meeting the provincial objective of environmental stewardship. This performance measure reflects the conservation management process of acquiring natural values information, identifying risks and threats to those values, and implementing strategies and projects to reduce the threats. The measure was originally selected because it was thought to offer a reasonable assessment of the ministry's efforts (i.e., output) in attaining the objective.

Achievements and Key Issues

The target for this performance measure was exceeded in 2002/03 because funding from the Forest Investment Account was made available to address issues that arose. However, this performance measure is not included in the 2003/04 - 2005/06 Service Plan for two reasons:

- It is an output measure that is not adequately related to the new objectives set for this goal in the new Service Plan.
- Experience has shown that it is difficult to report on this output measure in a reliable and meaningful way. The main problem is that it is not clear whether an increase or decrease in the number of responses to threats indicates progress. For example, a change in the number of responses could be due to a change in the number of environmental threats, or in the amount of resources available to address threats, or in the resources required

to address individual threats. Furthermore, the total number of responses is derived from adding up responses that are not comparable in terms of resources required or environmental implications.

Nevertheless, responding to significant threats in protected areas continues to be important to the ministry and has been included as a strategy in the 2003/04 - 2005/06 Service Plan.

Objective: Sustainable Development — Assist industry, local government and business to develop sustainably.

The 2002/03 - 2004/05 Service Plan identified the following strategies for this objective:

- Set environmental standards in a revised Forest Practices Code by the end of 2004.
- Work with other ministries to establish clear environmental stewardship guidelines and standards for industrial activities.
- Assist industry and the Ministry of Forests to manage the mountain pine beetle epidemic in a way that maintains environmental values.
- Support other ministries in standard setting for waste management (for example, agriculture, aquaculture).

Performance Measures

An appropriate environmental stewardship standards and/or inspections measure

Performance Measure	2002/03 Target	2002/03 Actual	2002/03 Variance
An appropriate environmental stewardship standards and/or inspections measure	Measure to be developed in 2003/04.	There was no deliverable for 2002/03. The specific focus for the measure was identified in the new Service Plan.	None.

Source: Ministry of Water, Land and Air Protection

Rationale for the Performance Measure

The ministry is moving from taking a prescriptive approach to environmental protection, to setting science- and results-based environmental standards, allowing flexibility in how they are met, and then monitoring or inspecting to ensure compliance. This new approach is aimed at facilitating the simultaneous attainment of economic development and environmental protection goals. This performance measure was selected to measure the ministry's progress in making this strategic shift.

Achievements and Key Issues

The specific focus for this performance measure was identified in the 2003/04 - 2005/06 Service Plan. An appropriate measure relating to environmental standards for the *Forest and Range Practices Act* will be developed in 2003/04.

An appropriate environmental stewardship compliance measure based on standards and/or inspections

Performance Measure	2002/03 Target	2002/03 Actual	2002/03 Variance
An appropriate environmental stewardship compliance measure based on standards and/or inspections.	Measure to be developed in 2003/04.	There was no deliverable for 2002/03. Work was conducted on developing the ministry's overall compliance strategy, of which compliance reporting will be a part.	None.

Source: Ministry of Water, Land and Air Protection

Rationale for the Performance Measure

This performance measure was selected because compliance with environmental standards is an important means of attaining sustainable development.

Achievements and Key Issues

The ministry continued in 2002/03 to conduct inspections and, where non-compliance was detected, appropriate investigations and enforcement actions were taken.

A key ministry achievement in 2002/03 related to compliance was the establishment of a call centre. A partnership with the Provincial Emergency Program, the centre enables the public to phone in reports of environmental violations or concerns. This not only puts into action the ministry's commitment to shared stewardship, but it will provide the ministry with important information it can use to identify priority compliance issues and resource allocation needs to support monitoring and enforcement efforts. The 2003/04 – 2005/06 Service Plan includes an additional performance measure related to call centre trends to inform decision-making for allocating compliance resources.

Core Business Area: Park and Wildlife Recreation

Scope

The core business area of Park and Wildlife Recreation is also led primarily by the Environmental Stewardship Division. Key programs and services in this business area focus on applying a science-based approach to promote the effective management of fish, wildlife and park resources. To provide park and wildlife recreational services and opportunities to British Columbians, this business area establishes legislation, policies and procedures for park, fish and wildlife recreation. Working with First Nations, regional communities, other ministries and governments to protect recreational values and encourage recreation-linked economic activity is a key function of this business area.

The following numbers show who is served by this core business area:

- Park users — approximately 23 million visits to British Columbia's parks annually.
- Hunters — almost 95,000 resident hunters and 6,000 non-resident hunters annually.
- Anglers — almost 300,000 resident anglers and 82,000 non-resident anglers annually.

Goal 3: Provide park and wildlife recreational services and opportunities to British Columbians and visitors.

In the 2002/03 - 2004/05 Service Plan, the objectives set by the ministry for this goal focused primarily on the provision of park, fish and wildlife recreation opportunities. Reflecting recent shifts in the ministry's strategic approach, the objectives in the new Service Plan are stated as outcomes. Those outcomes concern the quality of recreational opportunities provided to users and the optimization of the contribution of park, fish and wildlife recreation to the province's economy. In response to the revised objectives, new performance measures have been developed, focused on assessing the quality of the ministry's client service and the amount of economic contribution being generated by outdoor recreation.

The information presented below describes the achievements and challenges associated with each performance measure used in last year's Service Plan for this goal. Each performance measure is linked to the ministry objective it assesses, and the rationale for the choice of each measure is explained.

Objective: Hunting, Angling and Wildlife Viewing Opportunities — Manage/allocate fish and wildlife for angling, hunting and viewing, and provide wilderness recreation opportunities.

The 2002/03 - 2004/05 Service Plan identified the following strategies for this objective:

- Provide hunting and angling authorizations, based on known population data, and deliver wilderness recreation management.
- Develop new funding and management approach for fish hatchery operations by mid-2003.
- Develop Web-based hunting and angling licensing services by mid-2004.
- Undertake a comprehensive review of hunting and angling administration by mid-2004.

Performance Measures

Client satisfaction with fish and wildlife recreation opportunities

Performance Measure	2002/03 Target	2002/03 Actual	2002/03 Variance
Client satisfaction with fish and wildlife recreation opportunities.	Measure to be developed in 2002/03.	Specific details for this measure were identified in 2003/04 – 2005/06 Service Plan.	None.

Source: Ministry of Water, Land and Air Protection

Rationale for the Performance Measure

A key intended outcome of providing British Columbians and visitors with fish and wildlife recreation opportunities is client satisfaction. This performance measure was selected to determine the ministry's effectiveness in achieving this outcome.

Achievements and Key Issues

The ministry's approach to issuing fish and wildlife recreation authorizations is under review. A significant change — the implementation of an electronic licensing system (refer to the "Summary Reports on Other Planning Processes" section for further details about the Information Resource Management Plan) — is expected to improve both access to authorizations and the timeliness of processing authorizations for user access to fish and wildlife resources. Developing the client satisfaction measure will therefore be incorporated into the plans for the new licensing system. The ministry intends to acquire the necessary data for the measure through a survey of hunters and anglers who purchase licences over the Internet or through authorized retailers.

While the new system may pose some data challenges, the electronic survey method is expected to be a cost-effective means of data collection.

Compliance with fish and wildlife recreation authorizations

Performance Measure	2002/03 Target	2002/03 Actual	2002/03 Variance
Compliance with fish and wildlife recreation authorizations.	Measure to be developed in 2003/04.	There was no deliverable for 2002/03. Work was conducted on developing the ministry's overall compliance strategy, of which compliance reporting will be a part.	None.

Source: Ministry of Water, Land and Air Protection

Rationale for the Performance Measure

A key role of the ministry in meeting its objective of managing fish and wildlife for angling, hunting and viewing is to ensure that fish and wildlife recreation authorizations are complied with. Over the last 10 years, one of the ministry's main challenges has been effective monitoring and reporting.

Achievements and Key Issues

The ministry continued in 2002/03 to conduct inspections and, where non-compliance was detected, appropriate investigations and enforcement actions were taken.

During the April 2002 to March 2003 period, there were 1,010 wildlife recreation warnings issued and 1,197 charges. In the same period, there were 797 fishing-related warnings and 575 charges. Figure 4 provides these and further statistics related to wildlife and fishing-related enforcement.

Enforcement Statistics				
Program	Number of Occurrence Reports	Number of Case Files	Number of Charges	Number of Warnings
Wildlife	2,828	2,120	1,197	1,010
Fisheries	1,327	1,114	575	797
Total	**4,155**	**3,234**	**1,772**	**1,807**

Source: Conservation Officer Service
Figure 4. *Enforcement Statistics*

Work in developing this measure did not proceed in 2002/03 because the ministry is undertaking reviews of its approaches to regulatory compliance and issuing fish and wildlife recreation authorizations.

As reported under Goal 2, Environmental Stewardship, a key ministry achievement in 2002/03 related to compliance was the establishment of a call centre, in partnership with the Provincial Emergency Program. The centre enables the public to phone in reports of environmental violations or concerns. This puts into action the ministry's commitment to shared stewardship, and provides a source of information that the ministry can use to identify priority compliance issues and resource allocation needs to support monitoring and enforcement. The 2003/04 – 2005/06 Service Plan includes an additional performance measure related to call centre trends to inform decision-making for allocating compliance resources.

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Web-based delivery of hunting and angling licences

Performance Measure	2001/02 Actual	2002/03 Target	2002/03 Actual	2002/03 Variance
Web-based delivery of hunting and angling licences.	Manual paper-based system.	Develop Internet-based electronic delivery system and promote greater migration to electronic delivery of services throughout 2002/03 - 2004/05.	Business requirements defined in March 2003. Implementation scheduled for 2004.	None.

Source: Ministry of Water, Land and Air Protection

Rationale for the Performance Measure

The purpose of this performance measure is to track the ministry's success in shifting from a manual, paper-based system to a more cost-effective and efficient internet-based system. Improvements to the processing of hunting and fishing licences meet the ministry's objective of improving both timeliness and client satisfaction.

Achievements and Key Issues

The business requirements in support of a new online licensing system were defined during 2002/03, and implementation is expected in 2004. However, the objectives under this goal in the 2003/04 - 2005/06 Service Plan have since been changed to focus on the intended outcomes of high quality hunting and angling opportunities and optimized economic contribution from fish and wildlife recreation. As this measure is not appropriately linked to the new objectives, and is an output rather than an outcome, it has not been included in the new Service Plan. Instead, it is being retained in the plan as a strategy.

Timely distribution of annual freshwater sport fishing synopsis and wildlife hunting and trapping synopsis

Performance Measure	Prior Years' Actual	2002/03 Target	2002/03 Actual	2002/03 Variance
Timely distribution of annual freshwater sport fishing synopsis and wildlife hunting and trapping synopsis.	Varying publication dates	Angling synopsis published by March 15. Hunting synopsis published by July 15.	Angling synopsis published March 1. Hunting synopsis published July 15.	Target met.

Source: Ministry of Water, Land and Air Protection

Rationale for the Performance Measure

This performance measure was selected because the timely distribution of both synopses is important in allowing the ministry to be effective in its objective of allocating fish and wildlife for angling and hunting. The synopses provide the ministry's sport fishing, hunting and trapping clients with detailed information about opportunities available in the upcoming angling and hunting seasons. Anglers and hunters use the information for trip planning. If the synopses were not published on time, the recreation opportunities they describe could be missed — particularly those opportunities available early in the season — and the economic benefits forfeited. In the past, late publication of a synopsis may have resulted in lost economic opportunity where tourist operators or guides were unable to book clients in advance.

Achievements and Key Issues

Production of both synopses involves significant effort. Factors contributing to fish and wildlife stocks (e.g., harvest limits, environmental conditions, predators) must be reconciled with a target for the current season's harvest, and regulatory approvals must be received before a synopsis can be published. Ministry staff's implementation of streamlined business and regulatory processes contributed to the success in meeting the publication targets for both synopses in 2002/03.

As reported for the previous performance measure, however, the objectives under this goal have been changed for 2003/04 to focus on the achievement of specific outcomes (high quality hunting and angling opportunities and optimized economic contributions from fish and wildlife recreation). This performance measure has not been included in the new Service Plan because other measures have been identified that are more directly linked to the new objectives. Nevertheless, the ministry considers timely communication to clients about fish and wildlife recreational opportunities to be an important aspect of client service and, as a result, timing of synopses distributions will continue to be monitored.

Objective: Parks Recreation — Provide, through private operators, camping and day use in parks.

The 2002/03 - 2004/05 Service Plan identified the following strategies for this objective:

- Provide facilities for camping and recreation in designated parks and remove recreational facilities in lower use parks by end of 2003.
- Increase opportunities for commercial recreation service delivery in appropriate parts of the park system.
- Increase local community and First Nations involvement in park management through a different management structure, such as an Authority.
- Enhance Web-based information sources.

Performance Measure

Park visitor satisfaction with campground facilities and services

Performance Measure	2002/03 Target	2002/03 Actual	2002/03 Variance
Park visitor satisfaction with campground facilities and services.	75%	78%	Target exceeded.

Source: Ministry of Water, Land and Air Protection, BC Parks Satisfaction Survey

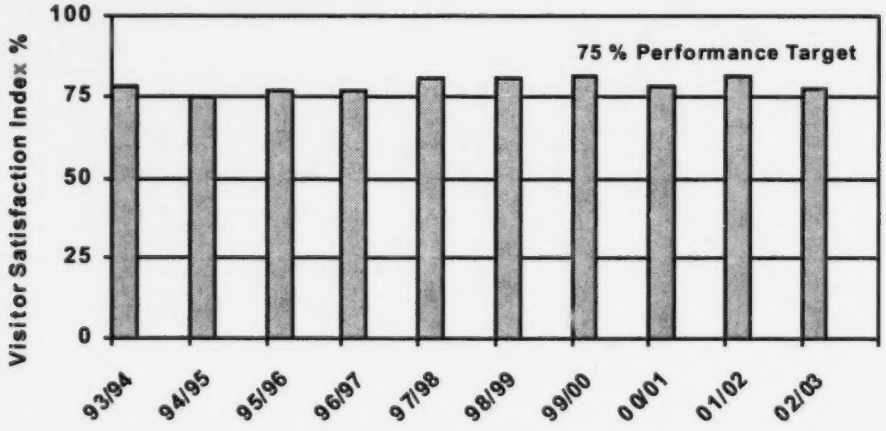
Rationale for the Performance Measure

One important outcome of providing campground facilities and services is client satisfaction. This performance measure directly assesses the ministry's effectiveness in achieving that outcome.

Achievements and Key Issues

Since 1985, the provincial government has conducted an annual satisfaction survey of visitors to campgrounds in the BC Parks system. This enables BC Parks to capture campers' views about the quality of services being provided by the ministry in the campgrounds, and therefore to identify priorities for service and facility improvements.

The Visitor Satisfaction Index is the overall rating, averaged for the province, that campers give in the survey to five categories: cleanliness of restrooms, cleanliness of grounds, condition of facilities, sense of security, and control of noise. The rating is based on responses of "excellent" and "above average." The ministry uses the index to determine how well these five particular services are being provided from year to year, and how effective service improvements have been. Figure 5 shows the Visitor Satisfaction Index for the past 10 years.



Source: Ministry of Water, Land and Air Protection, BC Parks Satisfaction Survey

Figure 5. *Visitor Satisfaction Index*

Although the performance target was met, the satisfaction rating in 2002/03 of 78% is slightly lower than it has been in the past five years. Overall satisfaction for the five services that constitute the index remained high.

Deregulation

As part of its *New Era* commitments, the government pledged to reduce regulations by 33% overall.

The ministry has a three-year plan to reduce regulations by 38%, ending June 30, 2004. As of March 31, 2003, the ministry reduced its regulations by 5,143, or 23.87%, from a baseline of 21,541 regulations. This is the initial step in reducing the economic burden of prescriptive regulations for industry and other stakeholders.

The target for the 2003/04 fiscal year (by March 31, 2004) is a reduction of 2,257 regulations, or a further 11% of the total.

Specific legislative reform work completed during fiscal 2002/03 for introduction to the Legislature in fiscal year 2003/04 (spring 2003 sitting) includes the *Statutes Amendment Act*, the *Flood Hazards Statutes Amendment Act* and the *Integrated Pest Management Act*. In addition, the *Environmental Management Act*, when passed, will replace the *Environment Management Act* and the *Waste Management Act*.

Between April 1, 2004 and June 30, 2004, the ministry's regulations will be reduced by an additional 4%.

Summary of Performance Measure Results, 2002/03

The following tables summarize the key performance results of the fiscal year 2002/03, by goal.

Environmental Protection — Protect human health and safety by ensuring clean and safe water, land and air.

Performance Measure	2002/03 Target	2002/03 Actual	2002/03 Variance
Municipal/industrial sectors for which the ministry has established clear, up-to-date performance expectations.	Oil industry stewardship program.	Oil industry stewardship program expanded in January 2003.	Target met.
	Amendment of Contaminated Sites Regulation.	First phase of legislative changes was prepared for introduction in spring 2003 legislative session.	Awaiting review of legislative changes. Work in progress on further changes to contaminated sites regulatory regime.
	Overhaul of *Pesticide Control Act*.	New legislation was prepared for introduction in spring 2003 legislative session.	Awaiting review of new legislation. Timing depends on dates of legislative session and government priorities.
Compliance with standards (includes municipal and industrial sectors for which results-based standards or regulations are already in place, e.g., asphalt, municipal sewage).	Measure to be developed in 2002/03.	Work conducted on developing the ministry's overall compliance strategy, of which compliance reporting will be a part.	Ministry approach to compliance is under review.

Performance Measure	2002/03 Target	2002/03 Actual	2002/03 Variance
Frequency of inspections of high-risk authorizations.	Minimum of annual inspection for each site.	77 high-risk sites were inspected, some more than once where risk was considered particularly high. Total inspections/ visits: 215.	The 13 sites not inspected were not considered to be high risk in 2002/03.
Timeliness of issuing waste management authorizations.	0-6 months for non-permit approvals; 12-24 months for remaining high-risk detailed approvals.	Data on timeliness not available, but 240 permit processing decisions made and backlog reduced from 298 to 75.	Process for collecting data on timeliness of issuing non-permit approvals was not in place. Not enough time has elapsed for data to be available for high-risk approvals.
Percentage of communities meeting the provincial air quality objective for PM_{10} of 50 µg/m^3 (24-hour average).	55% of communities	58% of communities met the target (22 of 38 communities)	Target exceeded.
Total greenhouse gas emissions in British Columbia.	No target was identified.	Development of the Climate Change Action Plan for British Columbia is in progress. The plan will include an emission reduction target.	None.
Trend of surface water quality.	Increase number of water bodies where trend reporting is possible.	30 water bodies monitored.	Target met.
Testing and trends for nitrates in groundwater.	Maintain monitoring capacity in the three critical aquifers.	Monitoring in 3 critical aquifers maintained. Nitrate monitoring expanded to 15 other community aquifers.	Target exceeded.
Number of aquifers identified and classified.	488	593	Target exceeded.

Performance Measure	2002/03 Target	2002/03 Actual	2002/03 Variance
An appropriate measure relating to industry-led product stewardship.	Measure to be developed in 2002/03.	New measure was identified in new Service Plan.	Target met.
Number of toxic spill emergency response plans tested (ministry plans, industrial plans, response agency plans).	Ministry plans: 2 approved, 1 tested. Industrial plans: 7 tested. Response agency plans: 2 tested	No plans were tested. There were more than 3,000 spill incidents in 2002/03. The ministry made considerable progress towards shifting responsibility for low- and medium-risk spills to industry and other partners and responded to the nearly 300 high-risk spills.	Program is adopting a new risk-based approach to identifying spills.

Environmental Stewardship — Maintain and restore the natural diversity of ecosystems, and fish and wildlife species and their habitat.

Performance Measure	2002/03 Target	2002/03 Actual	2002/03 Variance
An appropriate species management measure reflecting the Biodiversity Strategy and priority-setting.	Measure to be developed in 2004/05.	There was no deliverable for 2002/03. Two new measures related to species management were identified in the new Service Plan.	None.
Number of established Wildlife Habitat Areas (WHA).	75 WHAs	86 WHAs	Target exceeded.
Number and percentage of protected areas with approved management direction.	555 69%	520 64%	89% of target met; shortfall (35) expected to be met in early 2003/04.
Number of responses to known significant threats in protected areas.	80	135	Target exceeded

Park and Wildlife Recreation — Provide park and wildlife recreational services and opportunities to British Columbians and visitors.

Performance Measure	2002/03 Target	2002/03 Actual	2002/03 Variance
Timely distribution of annual freshwater sport fishing synopsis and wildlife hunting and trapping synopsis.	Angling synopsis published by March 15. Hunting synopsis published by July 15.	Angling synopsis published March 1. Hunting synopsis published July 15.	Target met.
Park visitor satisfaction with campground facilities and services.	75%	78%	Target exceeded.

Report on Resources

The ministry is committed to achieving the government's three-year fiscal targets outlined in the 2002/03 - 2004/05 Service Plan. The following sections — "Resource Summary by Core Business Area" and "Resource Summary Mirroring the Estimates Vote Structure" — detail the fiscal performance by the Ministry of Water, Land and Air Protection in 2002/03. The background information below provides an overview of the financial context in which the ministry operates and gives examples showing how financial decisions are aligned with the goals, strategic shifts and performance measurement results outlined in this annual report.

Background

As it implements its strategic shifts, the ministry places greater emphasis on:

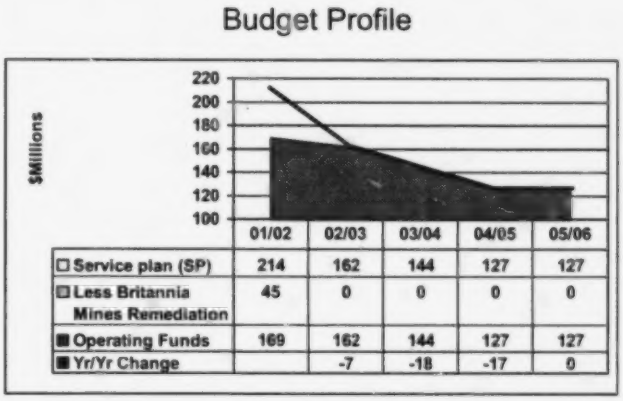
- core "planning," such as developing clear environmental standards and performance expectations and expanding partnerships; and
- "checking" functions, such as ensuring compliance through monitoring, auditing and public reporting, using enforcement where necessary.

The ministry places less emphasis on the administration of direct service delivery, or on "doing" functions. It is encouraging and building capacity for others, enabling them to accept a greater role in environmental stewardship and facilitate community initiatives to protect and restore the local environment. This type of structural change will occur over a period of years and depends on a number of factors, such as a sound public policy foundation, regulatory flexibility, an effective transition strategy, and capacity within the community.

A key factor that can have a significant impact on how well the ministry is able to implement structural change is capacity. It is influenced by the quality and number of resources available to do this work (e.g., level of employee skills and knowledge, financial resources, and state of technology and systems). The ministry addresses capacity issues by: refining its approach to planning; streamlining operations and processes; reallocating resources between core business areas, as required to meet evolving priorities; developing partnerships to accomplish objectives; and linking employee performance plans and training to goal delivery.

Three-Year Fiscal Outlook

The budget profile for the ministry will continue to decrease in 2003/04 and 2004/05 before stabilizing in 2005/06 (see Figure 6). Service Plan funding for 2003/04 onwards includes retaining existing recreation revenue.



	01/02	02/03	03/04	04/05	05/06
Service plan (SP)	214	162	144	127	127
Less Britannia Mines Remediation	45	0	0	0	0
Operating Funds	169	162	144	127	127
Yr/Yr Change		-7	-18	-17	0

Figure 6. *Budget profile 2001/02 to 2005/06*

In fiscal year 2002/03, the ministry's operating budget was $162.565 million, with actual expenditures of $162.547 million, resulting in a surplus of $0.018 million. Excluding funding for the Britannia Mine remediation, this represents a 4% decrease over the 2001/02 operating budget of $169.266 million. This initial small decrease in operational funding allowed the ministry to fund a number of its important strategic shifts.

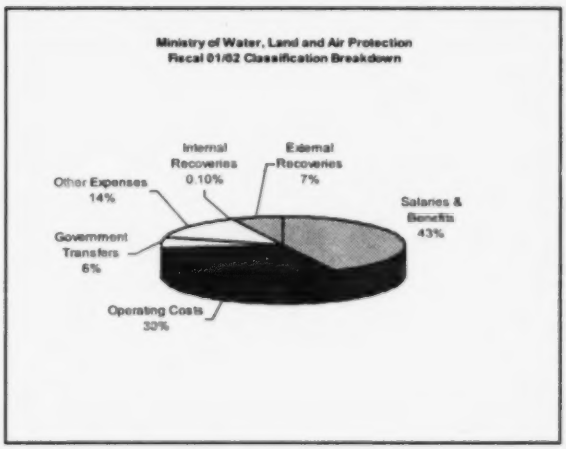


Figure 7
(Source: B.C. Public Accounts 2001 – 2002)

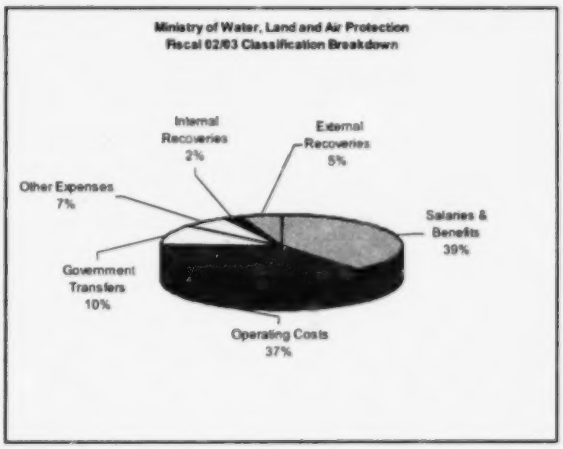


Figure 8
(Source: Draft B.C. Public Accounts 2002 – 2003)

Consistent with the strategic shift towards a greater emphasis on planning and checking, the distribution of ministry expenditures by classification is also shifting. The ministry is spending a smaller percentage on salaries and benefits, while increasing operating expenditures and government transfers, signalling a move to an external service delivery model. This trend is expected to continue as the role of the ministry and government changes from a service provider to a manager of the service delivery model.

Overview of Key Expenditure Areas

The following is a brief overview of some key expenditure areas in the 2002/03 fiscal year.

Salaries and Benefits

Through workforce adjustment over the last two years, the ministry has reduced its budgeted FTE allocation from 1,298 in 2001/02 to 1,138 in 2002/03, for a total reduction of 12%. Actual salaries and benefits costs were reduced by 10%, reflecting a heavier reliance on technical staff to implement the shift to a science-based approach to standards setting. A further workforce adjustment was implemented in October 2002 to bring the budgeted FTE allocation down to 998 for fiscal 2003/04.

Operating Costs

Some operating costs in 2002/03 demonstrate the ministry's progress in making its strategic shifts. The ministry has increased expenditures for staff training by 56%. Contracting expenditures to enable small business operators in all regions to deliver services have increased by 67%. As well, travel expenditures for regional staff (e.g., Compliance and Conservation Officers) to perform their duties throughout the province have increased by 25%.

These increased expenditures reflect the ministry's commitment to provide sufficient operational funding for staff responsible for service delivery and to create economic opportunities through partnerships with small business.

Government Transfers

The use of government transfers is another key expenditure area that reflects the ministry's effectiveness in delivering a transition strategy while building capacity within the community. Some expenditures in this area include a $2.6 million endowment payment to establish the Freshwater Fisheries Society of B.C. Additional expenditures include payments to:

- the Fraser Basin Council to develop tools for local governments and others to increase their capacity related to flood hazard management, and
- the British Columbia Conservation Foundation to enable the completion of wildlife inventories and freshwater fish assessments.

Continuous Improvement

As part of its ongoing commitment to improve the links between revenues and expenditures and Service Plan objectives during 2002/2003, the Corporate Services Division worked with the divisions to redesign the ministry's chart of accounts. Changes as a result of this redesign will allow the ministry to record expenditures by goals and objectives, and to improve its ability to report fiscal performance results to the public. This change will be implemented beginning in the 2003/04 fiscal year.

Resource Summary by Core Business Area

	Estimated	Other Authorizations[4]	Total	Actual	Variance
Operating Expenses ($000)					
Environmental Protection[1]	48,947		48,947	47,389	1,558
Environmental Stewardship[1, 2]	44,362		44,362	51,063	(6,701)
Park and Wildlife Recreation[1, 2]	31,806		31,806	35,489	(3,683)
Executive and Support Services[3]	37,379	71	37,450	28,606	8,844
Total	**162,494**	**71**	**162,565**	**162,547**	**18**
Full-time Equivalents (FTEs)					
Environmental Protection	335		335	325	10
Environmental Stewardship	394		394	382	12
Park and Wildlife Recreation	232		232	223	9
Executive and Support Services	177		177	196	(19)
Total	**1,138**		**1,138**	**1,126**	**12**
Ministry Capital Expenditures (CRF) ($000)					
Environmental Protection	1,378		1,378	1,326	52
Environmental Stewardship	4,829		4,829	4,732	97
Park and Wildlife Recreation	4,038		4,038	4,177	(139)
Executive and Support Services	8,555		8,555	75	8,480
Total	**18,800**		**18,800**	**10,310**	**8,490**

Notes:

[1] The salaries, operating costs and FTEs for the Conservation Officer Service have been allocated evenly to reflect their service to client groups in Environmental Protection and Environmental Stewardship.

[2] The salaries, operating expenditures and FTEs for the Environmental Stewardship Division have been allocated to reflect their dual responsibility for Environmental Stewardship and Park and Wildlife Recreation.

[3] Executive and Support Services includes expenditures for the Minister's Office, Deputy Minister's Office, Transition, Corporate Services (shared with the Ministry of Sustainable Resource Management), Planning, Innovation and Enforcement Division (other than the Conservation Officer Service); and shared administration staff in the regional offices.

[4] Other authorizations include supplementary estimates.

Resource Summary by Core Business Area

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[4] Other authorizations include supplementary estimates.

Resource Summary Mirroring the *Estimates* Vote Structure

	Estimated	Other Authorizations[1]	Total	Actual	Variance
Operating Expenses ($000)[2]					
Minister's Office	480	71	551	422	129
Deputy Minister or Corporate Services	28,328		28,328	23,438	4,890
Environmental Protection	45,137		45,137	40,059	5,078
Environmental Stewardship	68,655		68,655	81,166	(12,511)
Planning, Innovation and Enforcement	19,894		19,894	17,462	2,432
Total	**162,494**	**71**	**162,565**	**162,547**	**18**
Full-time Equivalents (FTEs)					
Minister's Office	5		5	4	1
Deputy Minister or Corporate Services	107		107	137	(30)
Environmental Protection	275		275	265	10
Environmental Stewardship	566		566	544	22
Planning, Innovation and Enforcement	185		185	175	10
Total	**1,138**		**1,138**	**1,126**	**12**
Ministry Capital Expenditures (CRF) ($000)					
Minister's Office					
Deputy Minister or Corporate Services	8,535		8,535	13	8,522
Environmental Protection	924		924	1,118	(194)
Environmental Stewardship	8,413		8,413	8,703	(290)
Planning, Innovation and Enforcement	928		928	476	452
Total	**18,800**		**18,800**	**10,310**	**8,490**

Notes:

[1] Other authorizations include supplementary estimates.

[2] The distribution of expenditures is presented to reflect the service line roll-up in the Public Accounts. Variances by division used by the ministry for financial management purposes are:

Minister's Office	129
Deputy Minister or Corporate Services	3,327
Environmental Protection	1,456
Environmental Stewardship	(5,614)
Planning, Innovation and Enforcement	720
Total	18

Summary Reports on Other Planning Processes

Human Resources Management Plan

The ministry recognizes that successfully implementing significant changes in service delivery in the longer term requires a skilled and healthy workforce functioning in an environment that promotes innovation, learning and results consistent with the government's commitment to public service renewal. As well, staff must have a clear understanding of their roles. The following are some key strategies:

- Ensure the ministry has the staff resources and succession plans to meet its present and future performance commitments.
- Acquire, develop, retain and share critical knowledge and skills.
- Recognize employee contributions and enhance employee and workplace wellness.

Achievements

Following consultation with staff across the province in August 2002, the ministry developed a Human Resource Renewal Strategy. In addition, the ministry implemented an employee ombudsman initiative. In 2002/03, the ministry began to formally move towards having an Employee Performance and Development Plan (EPDP) in place for each employee. As of March 2003, an estimated 35% of all management staff and roughly 20% of all ministry staff had an EPDP that linked work and development goals to the Service Plan. The target in the 2003/04 – 2005/06 Service Plan is for 100% of staff to have an EPDP by May 31, 2003.

Information Resource Management Plan

All ministry systems applications are hosted by the Ministry of Sustainable Resource Management, which also collects and integrates data and provides information access for the Ministry of Water, Land and Air Protection.

During 2002/03, the Ministry of Water, Land and Air Protection refined its Information Resource Management Plan, which is linked to both the ministry's strategic and operational processes. The ministry has established a Systems and Information Planning Committee (SIP) to ensure efficient and effective delivery of ministry technology services and business solutions. The following are some key strategies:

- Provide real-time public access through the Web to environmental data, recreational opportunities, proposed regulatory changes, guidelines and industrial activities.
- Consolidate ministry authorization applications (e.g., fishing and hunting licences, hunting permits, park use permits, waste discharge permits).

Achievements

In 2002/03, the ministry was able to complete an inventory of all ministry applications and perform a major enhancement of existing Web sites. In addition, the complex business requirements for the authorization compliance project were completed.

Appendix A — Glossary

airshed: Geographical areas in which air quality is a function of the same sources, weather and topography.

ambient air or water quality: The overall or general condition of air or water in a region outside the zone of influence of discharges — in contrast to local condition, which may be related to a specific source of contamination.

AOX: Adsorbable organic halides, a family of chemicals produced when halogen elements such as chlorine react with organic matter. AOX is a measure of organochlorine content (e.g., dioxins and furans) used to regulate discharges of these compounds in pulp mill effluents.

Approved Management Direction: An approved management plan, master plan, management direction statement, interim management statement, or Purpose Statement and Zoning Plan.

aquifer: An underground zone or stratum of permeable rock or loose material where water accumulates, and which can produce useful quantities of water when tapped by a well. It can be contaminated by improper disposal of waste.

biodiversity (biological diversity): The variety of life in an area, from a small area such as a pond to the whole biosphere. "Biodiversity" encompasses four main considerations: landscape diversity, ecosystem diversity, species diversity and genetic diversity. It also involves the countless, complex ways in which living things function and interact.

contaminated site: As defined in Section 26 of the *Waste Management Act* and section 11(1) of the Contaminated Sites Regulation, a site containing substances that exceed numerical standards set out in the regulation. The Final Report of the Advisory Panel on Contaminated Sites (February 2003) recommends a definition similar to that in other North American jurisdictions: a site that presents an actual or imminent risk to, or effect on, health, safety or the environment.

ecosystem: Organisms of a natural community, together with their physical, chemical and biological environment.

Freshwater sport fishing synopsis: A booklet published each spring that outlines all the sport fishing regulations that apply to freshwater in British Columbia (except for salmon fishing and fishing in national parks). Anglers should be familiar with these regulations before going fishing.

general wildlife measures: Measures to protect species at risk from development while recognizing forestry's social and economic benefits.

greenhouse gases: The gases that play a part in the greenhouse effect: carbon dioxide (CO_2, the most significant greenhouse gas), methane, nitrous oxide, ozone, water vapour, CFCs and other trace gases.

Management Plans: Include management plans, master plans (a term used until 1997), management direction statements, interim management statements (a term used from 1988 to 1992) and Purpose Statements and Zoning Plans. The purpose of the plans is to provide a long-term vision and strategic guidance for the management and stewardship of parks, recreation areas, ecological reserves and protected areas managed by the Environmental Stewardship Division of the Ministry of Water, Land and Air Protection.

nitrate: An essential plant nutrient found in fertilizers and which may be produced during the breakdown of organic wastes. Excessive fertilizer application, improper agricultural waste management or underground septic tanks may increase nitrate levels in groundwater. Nitrates reduce the ability of blood to carry oxygen. Infants under six months are particularly at risk from drinking well-water containing excessive nitrates.

particulate matter (PM): Fine liquid or solid particles (such as dust, smoke, mist fumes or smog) found in the air or emissions. Also known as particulates.

PM_{10}: Measure of particulate matter under 10 microns (µm).

$PM_{2.5}$: Measure of particulate matter under 2.5 microns. There is a national initiative to measure $PM_{2.5}$ rather than PM_{10}, as recent studies have shown that particles of 2.5 microns or less ($PM_{2.5}$) pose the greatest health risk.

Protected Areas: Refers to parks, recreation areas, ecological reserves and designations under the *Environment and Land Use Act* managed by the Ministry of Water, Land and Air Protection. They include:

- Class A parks established under the *Park Act* or by the *Protected Areas of British Columbia Act*
- Class B and C parks and recreation areas established under the *Park Act*
- Ecological reserves established under the *Ecological Reserve Act* or by the *Protected Areas of British Columbia Act*
- "protected areas" and other conservation-oriented designations established under the *Environment and Land Use Act* that are managed by the Environmental Stewardship Division, Ministry of Water, Land and Air Protection

species at risk: A species that has been identified as extirpated, endangered, threatened, vulnerable or of special concern. In this province, the British Columbia Conservation Data Centre (CDC) assigns a global and provincial rank according to an objective set of criteria established by the U.S. Nature Conservancy. The ranks assigned and listed in the tracking lists maintained by the CDC provide the basis for the Red and Blue lists of the Ministry of Water, Land and Air Protection.

stewardship: Although ultimate accountability resides with the regulatory body, "environmental stewardship" or "shared stewardship" refers to environmental management based on shared responsibility in determining environmental outcomes, including other participating persons or groups (i.e., industry, consumers, community groups, other levels of government).

sustainable development: Economic and social development within the limits required to sustain long-term environmental well-being. Such development ensures that our use of the environment and natural resources today does not harm the prospects for their use in the future.

watershed: An entire area that is drained by a waterway or that drains into a lake or reservoir. Also referred to as a water basin.

Wildlife Habitat Areas (WHAs): Mapped areas of Crown land containing critical habitat, such as breeding, feeding and denning habitat, crucial to identified wildlife. WHAs help protect species and plant communities at risk by specifying mandatory practices called general wildlife measures.

Wildlife hunting and trapping synopsis: A booklet published each summer that outlines all the hunting and trapping regulations pertinent under the *Wildlife Act* (British Columbia). The synopsis also sets out general hunting information and defines the open seasons. Hunters and trappers should be familiar with the regulations before going out.

Wildlife Management Areas (WMAs): Designated under the provincial *Wildlife Act*, these areas are usually established where conservation and management measures are considered essential to the continued well-being of resident or migratory wildlife of regional, national or global significance. Conservation of wildlife, fish and their habitats is a priority in WMAs, but other land uses may be permitted by the Regional Manager of the Environmental Stewardship Division.

Appendix B — Legislation Administered by the Ministry

The following provides an overview of the legislation, in alphabetical order, currently administered by the Ministry of Water, Land and Air Protection:[1]

***Commercial River Rafting Safety Act*, R.S.B.C. 1996, c. 56**

This statute creates the position of the Registrar of Commercial River Rafting and provides for the registration and licensing of outfitters, guides and trip leaders, and the setting and enforcement of safety standards for commercial river rafting. The Act is presently administered by the Environmental Stewardship Division.

***Creston Valley Wildlife Act*, R.S.B.C. 1996, c. 84**

The Act places the Creston Valley Wildlife Management Area (CVWMA) in trust for the continued conservation, management and development of wildlife.

***Dike Maintenance Act*, R.S.B.C. 1996, c. 95**

This Act empowers the Inspector of Dikes to supervise all dikes and the operation of all dike authorities relative to the construction and maintenance of dikes.

***Drainage, Ditch and Dike Act*, R.S.B.C. 1996, c. 102**

This Act establishes a comprehensive scheme for the regulation and authorization of ditches, watercourses, drainages, and dikes throughout the province.

***Ecological Reserve Act*, R.S.B.C. 1996, c. 103**

The *Ecological Reserve Act* is one of the key pieces of protected area legislation. The Act provides for the establishment and administration of ecological reserves in the province. New ecological reserves are created by Order in Council or through addition to the schedules of the *Protected Areas of British Columbia Act*. The Environmental Stewardship Division of the ministry administers the Act and the ecological reserves.

***Environment Management Act*, R.S.B.C. 1996, c. 118**

The *Environment Management Act* is one of the major enabling statutes for the ministry. This Act places responsibility for managing, protecting and enhancing the environment with the ministry.

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[1] Acts are assigned by Order in Council issued under the *Constitution Act*. Administration of acts can change quickly. Citations for all acts and regulations are to the most recent or original versions: these are frequently amended and can change quickly and with little notice. Readers are strongly advised to confirm all information with appropriate legal research before relying upon it.

***Fish Protection Act*, S.B.C. 1997, c. 21 [Section 12 only]**

Section 12 of the Act provides that the Lieutenant Governor in Council may, by regulation, establish policy directives regarding the protection and enhancement of riparian areas after consultation by the Minister with representatives of the Union of British Columbia Municipalities (UBCM).

***Industrial Operation Compensation Act*, R.S.B.C. 1996, c. 222**

The Act authorizes the creation of compensation agreements, both private and in right of the Crown, between land-owners and an industry for any damage that may be caused to the land. The Act also establishes an arbitration process for the fixing of compensation.

***Land Title Act*, R.S.B.C. 1996, c. 250 [Sections 82 and 219 (insofar as it relates to the portfolio of the Minister) only (except section 219 3(c), 11(b) and 13]**

Section 82 of the Act authorizes the Minister to designate flood plain areas. Section 219 (which, except for subsections 3(c), 11(b) and 13, is shared by the Ministries of Water, Land and Air Protection, Sustainable Resource Management and Community, Aboriginal and Women's Services) authorizes the Minister to designate a person as a covenantee for the purposes of registering a covenant as to use and alienation against the title to land.

Each Minister may exercise the general s. 219 authority insofar as it relates to the portfolio of the Minister. In the case of the Ministry of Water, Land and Air Protection, the authority relates to covenants concerning the right to flood. The Minister of Sustainable Resource Management has the exclusive authority to administer subsections 3(c), 11(b) and 13 (which concern the power to designate covenantees other than the entities listed in subsection 3(a) and (b)).

***Ministry of Environment Act*, R.S.B.C. 1996, c. 299 [Except s. 4(2)(d)]**

This Act established a ministry of the public service of the province called the Ministry of Environment. The purposes and functions of the ministry, the Minister and the Deputy Minister are specified in the Act. This Act, with the exception of paragraph 4(2)(d), is now the responsibility of the Ministry of Water, Land and Air Protection. Paragraph 4(2)(d) is administered by the Ministry of Sustainable Resource Management.

***Ministry of Lands, Parks and Housing Act*, R.S.B.C. 1996, c. 307 [ss. 3(3), 5(b) & 6 only]**

Sections currently assigned to the Ministry of Water, Land and Air Protection are:

- Section 3(3), which provides the Minister with the power to delegate to another person, subject to instructions, the function of signing a document. (This provision is shared with the Ministry of Sustainable Resource Management.)
- Section 5(b), which describes one of the functions of the ministry as being to encourage outdoor recreation, establish parks and conserve the natural scenic and historic features of British Columbia.
- Section 6, which provides the Minister with the authority, for the purposes of the Act, to enter into agreements (subject to the approval of the Lieutenant Governor in Council) with the government of Canada, the government of another province, or with any other person or a municipality. (This provision is shared with the Ministry of Sustainable Resource Management.)

***Park Act*, R.S.B.C. 1996, c. 344**

This key protected areas statute provides for the establishment, classification and management of provincial parks and recreation areas dedicated to the preservation of the natural environment for the inspiration, use and enjoyment of the public. Parks are designated by Order in Council or by inclusion in the schedules of the *Protected Areas of British Columbia Act*.

***Park (Regional) Act*, R.S.B.C. 1996, c. 345**

This Act provides for the management of regional park systems by either Regional Districts or through regional park districts established under the Act. The operation of regional parks is governed by the Act.

***Pesticide Control Act*, R.S.B.C. 1996, c. 360**

The *Pesticide Control Act* establishes a regulatory regime for the control of pesticides. The Act governs the licensing and certification of pesticide sales, purchases and use in the province. The Act also regulates the application, storage, disposition and transportation of pesticides. The Act also provides for appeals to the Environmental Appeal Board relating to decisions made under the authority of the Act.

***Protected Areas of British Columbia Act*, S.B.C. 2000, c. 17**

The *Protected Areas of British Columbia Act* represents a step in improving the legislative framework for the stewardship of the provincial protected areas system. The Act consolidates in its schedules all of the parks and ecological reserves for the purposes of the *Park Act* and the *Ecological Reserve Act*. The Act ensures that the boundaries of these protected areas can not be altered except by an act of the Legislature.

***Skagit Environmental Enhancement Act*, R.S.B.C. 1996, c. 426**

The fundamental purpose of the Act is to provide a mechanism in British Columbia for protecting biodiversity and administering the disposition of Crown land within an area set out by the Act in the Skagit Valley/Ross Lake area.

***Sustainable Environment Fund Act*, R.S.B.C. 1996, c. 445**

The Act establishes a fund from which the Minister may pay out money to reduce and manage solid, liquid, hazardous and atmospheric waste and for other environmental protection and environmental renewal initiatives.

***Waste Management Act*, R.S.B.C. 1996, c. 482**

- The *Waste Management Act* is the main statute for the regulation of pollution and waste in the province, and is the primary responsibility of the Environmental Protection Division. Under the Act, the ministry is responsible for overall waste management.

***Water Protection Act*, R.S.B.C. 1996, c. 484**

This Act provides essential protection of British Columbia's water. Specifically, the Act:

- confirms ownership of surface water and groundwater in the province;
- prohibits removal of British Columbia's water in bulk supply to locations outside of the province;
- grandfathers existing bulk water removal rights; and
- prohibits large-scale transfers of water between the major watersheds of the province.

***Weather Modification Act*, R.S.B.C. 1996, c. 486**

This Act provides for the mandatory licensing of weather modification activities.

***Wildlife Act*, R.S.B.C. 1996, c. 488**

This Act provides a comprehensive scheme for the regulation of hunting, angling and the management of the province's wildlife resources.

Appendix C — Initial Risk Identification and Ministry Response

As part of the annual planning cycle, the ministry identifies potential risks to the ministry's ability to deliver its mandate and determines some possible actions it might take in response to those risks.

Environment, Health, Society and the Economy Risks and Responses

Risks	Responses
• The optimal indicators of environmental health may not have been identified. • Predictions of how current activities will affect the environment may not be accurate enough. • Policies, programs and actions to address environmental impacts may not be appropriate or adequate. • Road development, water consumption and discharge of pollutants into the environment continue to affect air, water and habitat quality. • Rapid expansion of human activities continues to alter habitat and increase the number of species at risk. • Development and human activity heightens conflicts between wildlife and humans. • Emissions such as carbon dioxide and other gases that contribute to atmospheric warming have increased markedly. • Negative perceptions about environmental practices in British Columbia may adversely affect international markets. • If others do not take appropriate action to share the environment, ministry actions may not be enough to mitigate impacts.	• Audit the effectiveness of outcome measures and results to determine the best environmental indicators for future reporting. • Facilitate ways to incorporate reporting information (e.g., Environmental Trends reports) into priority setting, policy development and performance measurement. • Continue to support initiatives to limit air and water emissions (including ongoing opposition to the Sumas II power project). • Respond to and participate in national and international environmental initiatives (e.g., oil and gas exploration and global climate change). • Continue to support environmentally responsible production practices and product stewardship programs. • Continue to develop strategies and partnerships related to identifying, protecting and recovering species at risk and certification of resource industries • Use the outcome reporting to provide current and scientifically credible information to media, educators and policy-makers to foster awareness of environmental issues in decision-making and encourage stewardship.

Technology Infrastructure Risks and Responses

Risks	Responses
• Lack of robust information technology will affect the ministry's ability to support effective monitoring and reporting systems or to benefit from business process improvements. • Integrated data may be lacking on which to base decisions about standard setting, monitoring, compliance and public reporting. • Changes in service provision by other ministries may have unintended effects.	• Take a long-term approach to ensure that the ministry's information systems and information management needs are identified and data standards are met through the work of the Systems and Information Planning Committee (SIP). • Continue work to integrate existing databases through improved information systems platforms. • Continue to use SIP membership as the vehicle to communicate needs and understand the changes occurring.

Employee Development Risks and Responses

Risks	Responses
• Existing staff may need to supplement skill sets. • There is an inability to retain employees. • An aging workforce means increased retirement rates and knowledge retention issues.	• Implement a human resource strategy that includes: – ensuring that all staff have an Employee Performance and Development Plan (EPDP) in place by 2003 and conducting 360° leadership surveys for managers – conducting employee surveys to monitor employee satisfaction, absenteeism and retention rates

Revenue Risks and Responses

Risks	Responses
• Reduction in base funding means the ministry must rely more heavily on revenue generated for services in order to fund programs and maintain and upgrade facilities. • Revenue retention from recreational service fees may be affected by: – changing demographics – negative consumer response – external factors such as West Nile virus – trends in international tourism markets • Revenue generation below anticipated targets may result in further workforce adjustments.	• Work with Treasury Board staff to improve revenue-reporting models. • Implement improved approaches to awarding park contracts as a result of the external review of the park operating and contracting process in 2002/03. • Revitalize the visitor campground satisfaction survey to provide up-to-date market information. • Work with First Nations and heartland communities to identify partnerships and economic opportunities. • Continue to monitor changes in demographics that may affect revenue generation. (Once developed, the ministry's electronic licensing system for hunters and anglers will provide additional client data.)

Appendix D — Performance Results: Data Completeness and Reliability

Background

Performance measurement is contingent on the availability of useful data that are representative of performance and that help to measure and communicate progress towards organizational goals. Because data can be imperfect, there is a need to balance the desire for meaningful information against the cost of a "perfect" measure when it does not provide practical additional value. In the use of its performance measures, the ministry strives to provide sufficient accuracy and timeliness, but at a reasonable cost. In an attempt to bring consistency and quality to its performance reporting, the ministry has made efforts to follow the draft *Public Performance Reporting for British Columbia's Public Sector* (B.C. Office of the Auditor General, 2003). The ministry takes the following general approaches to the data it uses and how it evaluates that data.

Annual Data

Where possible, the data in this document are reported on a fiscal year basis (April 1 – March 31). In some cases, when data are collected and reported from external sources, calendar-year data are used, as indicated.

Data Sources

The ministry has attempted to include the data source for each of the measures used in this report. Eliminating error in data collection is part of the ongoing efforts of the program managers. To date, there has been no formal audit of the data.

Internal sources are often administrative records or sample surveys. In some cases, program managers rely on survey methodologies, computerized edit checks, professional judgement and reasonableness checks to minimize errors that may be introduced. As sources of error are identified, data collection information will be improved.

External data used in the various performance measures are from a wide variety of sources outside the ministry. This means that methods used for collection do not lie within the direct control of the ministry. The ministry therefore relies on the professionalism of the organizations that have provided the results. While the ministry may not have the ability to take direct action in improving the quality of the data, staff do consult with ministry partners to improve the utility.

Data Limitations — Timeliness

Timeliness is the most significant limitation as some data for the measures are not collected or published annually. For example, greenhouse gas emissions data from Environment Canada require several months of post-collection analysis. This means that final results for this annual report are only available up to the year 2000.

Financial Resources

For consistency purposes, the numbers (unaudited) reflected in the Resource Summary are based on information included in the 2002/03 Public Accounts. Changes in service lines made by the ministry during the fiscal year without adjusting roll-ups have resulted in budget variances at the vote level being inconsistent with the ministry reports. Service line roll-ups used by the Office of the Comptroller General will be updated in 2003/04 to ensure the consistent reporting of budget variances with the ministry.